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ABSTRACT

This handbook provides strategies for coordination of instruction between vocational education and general education teachers. Coordinated Vocational Academic Education (CVAE) programs were started in Texas to serve the disadvantaged. This handbook includes the following: information on using the handbook; a model overview; a list of print, nonprint, and organizational resources; and five appendices. The model overview is presented in six chapters: (1) introduction; (2) setting the stage; (3) local district inservice programs; (4) implementing the model; (5) increasing academic content in vocational education; and (6) evaluation and follow-up. The appendices, which make up the bulk of the document, include the following: (1) a trainer's manual in three sections: introduction, establishing communication channels, and vocational/academic advisory committee; (2) description of participating districts; (3) forms; (4) a list of techniques for generalizable skills instruction; (5) a list of remedial reading techniques; and (6) evaluation forms. Two readability formulas and a 14-item bibliography are also included. (NLA)

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STRATEGIES FOR COORDINATING VOCATIONAL AND ACADEMIC EDUCATION

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COORDINATION THROUGH COMMUNICATION

PROJECT MODEL HANDBOOK

FOR

**COORDINATION OF VOCATIONAL AND GENERAL EDUCATION FOR
STUDENTS ENROLLED IN COORDINATED VOCATIONAL ACADEMIC
EDUCATION (CVAE) GRADES 9-12**

Project Coordinator

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**Educational Development and Training Center
East Texas State University
Commerce, Texas 75428**

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ACKNOWLEDGMENTS

Coordination Through Communication is dedicated to the many vocational and academic teachers who work together to assist students who are enrolled in Coordinated Vocational Academic Education (CVAE) programs. Their commitment and dedication make it possible for many students to succeed who might otherwise become lost in the system.

Sincere appreciation is extended to the following people who gave of their time and effort to make this handbook possible:

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PREFACE

The purpose of *Coordination Through Communication* is to provide strategies for coordination of instruction between vocational education and general education teachers. The strategies include increased "academic" content in vocational education and delivery of "academic" instruction in a more relevant manner to students.

In 1968, over two hundred Coordinated Vocational Academic Education (CVAE) programs were started in Texas to serve the disadvantaged. CVAE was designed to provide occupational and academic education in a coordinated way. Currently, there are CVAE programs available in Agricultural Science and Technology, Office Education, Trade and Industrial Education, and Vocational Home Economics.

It is our hope that the reader and user of this handbook will find that it assists you in motivating teachers and others who are interested in improving the coordination of vocational and academic programs. As always, the Educational Development and Training Center encourages and welcomes your comments concerning the publications which it produces.

Shelia I. Grant-Gold, Ed.D.
Curriculum Specialist

PROFILE OF THE CVAE STUDENT

The following was reprinted with permission from the "Summary of Evaluation of Coordinated Vocational-Academic Education Grades 9-12," by Richard Bouton, Extension Instruction and Materials Center, The University of Texas at Austin.

WHO IS THE CVAE STUDENT?

It was and is, of course, difficult to globally characterize and categorize students in the CVAE program. The following descriptions were not based on hard, numerical data, but rather on observation, testimonies, interviews, and the examination of nearly 3,000 permanent records.

Learning about this type of student after being isolated from high schools and lower achieving students by the academic ivory tower, was somewhat of a cultural shock for the evaluation staff. CVAE students were less able than had been anticipated.

CVAE STUDENTS WERE ACADEMIC FAILURES.

They had not had many, if any successes, in school. They had suffered years of repeated poor performance, and that had taken its toll on their self-esteem. Frequently, the problems caused by this manifested themselves in poor motivation, poor attendance, and/or discipline problems.

CVAE STUDENTS DID NOT SEEM TO BELONG.

They were not members of band, choir, nor were they thespians. They did not work on the school newspaper. They were not leaders in student government. They were not athletes. Most teachers estimated that more than 80% were not members of any non-CVAE student organization. *Many will drop out of school, because they feel it has nothing for them.*

CVAE STUDENTS LEFT THE IMPRESSION THEY WERE TIMID.

When during visitations the evaluation staff talked to these students, they got an impression that the students were timid. They seemed overly anxious not to make mistakes. When filling out questionnaires, they frequently had questions about the meaning of a word or the intent of a question. However, they frequently attempted to cover up their question rather than ask it. They seemed to want to blend into the classroom rather than stand out in it.

More than one educator has referred to them as *shadow children*, in the shadow between special education students and "regular" education students.

Sometimes their academic profiles were so flat and low that the students appeared to be candidates for special education programs. *However, usually their overall performance level was just above that elusive critical level.*

Students with higher overall achievement, but with a single special handicap, had been placed in special education programs, and had received much individualized and special attention.

Indeed, there are many special programs, generated by much extra funding, for resource students. There is also much extra that high school offers to excellent students. Even the average students find special niches for their skills. Most have a sense of belonging and have experienced success.

The typical CVAE student has had limited success and remains isolated because of his/her inability to identify and/or channel individual strengths.

CVAE FREQUENTLY OFFERED THE FIRST SUCCESSFUL SCHOOL EXPERIENCE FOR THEM.

As noted, CVAE teachers provided parenting and appeared to be more concerned about them. Through the special leadership clubs, many experienced their first successful school membership and competition.

HOW TO USE THE HANDBOOK

Division Sheets
How to Use
Model Overview
Trainer's Manual

Gold
Green
Buff
Pink

Information Outlines
Transparency Masters
Activities
Evaluation

Blue
White
White
White

DIVISION SHEETS

The gold division sheets provide for easy identification of the beginning of new information or sections of material.

MODEL OVERVIEW

The model overview provides not only a description of the model but also identifies the necessary components of a model program. The model overview is divided into five parts: (1) setting the stage, (2) local district in-service of model, (3) implementing the model, (4) increasing academic content in vocational education, and (5) evaluation and follow-up.

TRAINER'S MANUAL

The Trainer's Manual is designed to help the trainer motivate teachers and others who are interested in establishing or improving the coordination of vocational and academic programs. It provides information on (1) design of the training model and (2) how to plan local in-service training.

INFORMATION OUTLINES

The information outlines are based on information presented in the local district in-service. (See Chapter III of the Model Overview.) The information outlines are designed to allow for the inclusion of trainer remarks and supplemental materials. The outline format will assist the trainer in identifying the key ideas presented in the model overview.

TRANSPARENCY MASTERS

Transparency masters are provided for use with training materials. Transparencies should be prepared prior to the presentation. The trainer should become familiar with each transparency and when it is to be used.

ACTIVITIES

The activities provided will allow workshop participants to experience first-hand the strategies recommended by the model. The trainer should become familiar with each activity and provide the necessary time needed for the participants to complete the activities.

EVALUATION

Three styles of workshop evaluation instruments have been included. Each evaluation instrument elicits the same information in a different manner. Prior to the workshop, one evaluation instrument should be selected for use. Each participant should be provided the opportunity to make comments and give recommendations. The evaluation is important in order to provide the trainer with feedback regarding the strengths and weakness of presentations and materials.

APPENDICES

Materials included in the appendices may be used as supplemental information and/or as workshop handouts.

**COORDINATION
THROUGH
COMMUNICATION**

**MODEL
OVERVIEW**

MODEL OVERVIEW

PURPOSE: To ensure effective coordination of instruction in vocational and general education for students enrolled in Coordinated Vocational-Academic Education programs, grades 9-12.

OBJECTIVES: The objectives of this model are to:

1. Provide strategies for coordination of instruction between vocational education and general education teachers.
2. Increase "academic" content in vocational education.
3. Deliver "academic" instruction in a more relevant manner to students.

POPULATION: Personnel in school districts with Coordinated Vocational Academic Education (CVAE) programs.

Administrators
Counselors
At-risk Coordinators
Academic Teachers
Vocational Teachers

STEPS:

- * **SETTING THE STAGE**
 - District Commitment
 - Designating a Vocational/Academic Coordinator
 - Introducing the Model at the Fall School In-Service
 - Student Recruitment and Placement
- * **LOCAL DISTRICT IN-SERVICE OF MODEL**
 - Introducing the Model
 - Establishing Communication Channels
 - Vocational/Academic Advisory Committee
- * **IMPLEMENTING THE MODEL**
 - Establishing Communication Channels
 - On-Going Communication Strategies
 - Implementing Scheduled Coordination Meetings
- * **INCREASING ACADEMIC CONTENT IN VOCATIONAL EDUCATION**
 - Strategies for Delivery of Relevant Academic Instruction

Establishing Academic Relevancy Through Club
Participation

* EVALUATION AND FOLLOW-UP

Student Evaluation

Student Follow-up

Model Evaluation

GOALS/OUTCOMES:

- * Effective coordination of instruction in vocational and general education for students enrolled in Coordinated Vocational Academic Education programs, grades 9-12.
- * Increased "academic" content in vocational education.
- * More relevant delivery of "academic" instruction to students.

CHAPTER I

INTRODUCTION

In July of 1989, the Educational Development and Training Center at East Texas State University, located in Commerce, Texas, was awarded a developmental grant by the Texas Education Agency. The grant was for the development of a model program for the coordination of vocational and general education for students enrolled in coordinated vocational academic education (CVAE), grades 9-12. The following objectives were identified for this project:

1. To develop strategies for coordination of instruction between vocational, education and general education teachers. These strategies were to include increased "academic" content in vocational education and delivery of "academic" instruction in a more relevant manner to students;
2. To identify five (5) schools that have CVAE programs which would support the implementation of this project; and
3. To develop a handbook and videotape that identify all activities and strategies included in the model, and to make these available for statewide dissemination.

In order to ensure continued involvement of a minimum of five school districts, one additional district was requested to participate in the project. (For district profiles, see appendix B.) Advisory committees were established. The project advisory committee was comprised of the following vocational administrators and professionals:

Shelia Grant-Gold, Project Coordinator
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Center for Slower Learners, Dallas, Texas

Marty Barbieri, Project Coordinator
Alternative to Social Promotion, Dallas, Texas

Donna Cunningham, TWC
Argyle, Texas

The technical advisory committee consisted of counselors, academic teachers and vocational teachers. The following individuals comprised the technical advisory committee:

Salvatore F. Pesta, CVAE/ICT Co-op, Memorial High School
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Edgewood ISD, San Antonio, Texas

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Carol A. Bethel, Language Arts, Wilmer Hutchins High School
Wilmer Hutchins ISD, Dallas, Texas

Venessa Thornton, CVAE Foods, Wilmer Hutchins High School
Wilmer Hutchins ISD, Dallas, Texas

The advisory committees identified strategies and activities considered to be important to the coordination of vocational and academic education. Based upon recommendations of the advisory committees, an in-service program was developed and presented at each of the six pilot sites so that the identified strategies and activities could be implemented and evaluated.

After in-service training was provided to the participants, each of the six pilot sites was monitored to determine the essential components and evaluate suggested strategies for

successful coordination of instruction between vocational education and general education teachers. These essential components can be grouped into five main categories:

- * Setting the Stage
- * Local District In-Service of Model
- * Implementing the Model
- * Increasing Academic Content In Vocational Education
- * Evaluation and Follow-Up

While components in each category in this handbook would be beneficial to any educational program, all components are vital to the successful coordination of vocational and academic education. Each of the five categories will be addressed in the following chapters of this handbook.

CHAPTER II

SETTING THE STAGE

DISTRICT COMMITMENT

Commitment is necessary for the success of any program. Commitment on the part of the local school district is of vital importance in the success of "Coordination Through Communication." Administrators, counselors, and teachers must be willing to put forth extra effort. It is through this type of total district commitment that coordination of vocational and general education will be successful.

DESIGNATING A VOCATIONAL/ACADEMIC COORDINATOR

In order for coordination to succeed, a key individual, selected by the administration, should be designated as the coordinator of CVAE programs. This individual may be an administrator, at-risk coordinator, counselor, curriculum director, department chairperson, or a teacher who is respected by both administrators and teachers. The coordinator will be responsible for providing support services to both academic and vocational personnel. Coordination activities include notifying teachers and other personnel of meeting schedules, maintaining a record of the minutes of meetings, and monitoring teacher involvement. In addition, requests made by those teachers who participate in the coordination meetings are conveyed to the appropriate administrator by the coordinator.

INTRODUCING THE MODEL AT THE FALL SCHOOL IN-SERVICE

A brief introduction to Coordination Through Communication should be provided to all teachers at the fall in-service. The primary objective of the model is to provide strategies for coordination of instruction between vocational education and general education teachers. The strategies include increased "academic" content in vocational education and delivery of "academic" instruction in a more relevant manner to students.

The criteria for including an activity or strategy in the model, are:

1. It has to be simple.
2. It has to be easy.

3. It must benefit both teachers and students.

Teachers are busy. In order to maintain teacher involvement, strategies have been identified which do not require large amounts of time, additional paperwork, or large group involvement.

Channels which enable vocational and academic teachers to communicate tend to promote understanding and cooperation. To emphasize this need for a cooperative exchange of ideas, the title "Coordination Through Communication" has been selected for the project model. Communication, the basis for this model serves as the avenue for finding innovative ways to effectively manage relationships, and "Coordination Through Communication" incorporates this concept.

STUDENT RECRUITMENT AND PLACEMENT

Proper student placement is the foundation for ensuring successful coordination of vocational and general education for students enrolled in CVAE programs. Merely meeting the student eligibility criteria does not mean that a student should be placed in a CVAE program. Students' interests, aptitudes, and abilities should be assessed and considered when planning the most appropriate placement.

Administrators, counselors, and academic and vocational teachers should work together as a team to ensure students are placed in programs that will both improve their academic skills and provide them with occupationally-specific skills. This section will outline the essential strategies and procedures for ensuring proper placement of students and will delineate the role and responsibilities of key personnel.

UNDERSTANDING CVAE COURSE OFFERINGS

All key personnel should have a thorough understanding of the existing CVAE courses offered by their school district. Essential elements and curriculum guides should be reviewed, and CVAE teachers should be interviewed to obtain additional information concerning specific activities and strategies used in their instruction.

If a school district is planning to initiate new CVAE programs, key personnel should be involved in determining those programs that will provide students with both opportunities

for applying academic principles and providing employment options upon completion. At this time, CVAE is approved in the following program areas:

- * Agriculture Science and Technology
- * Office Education
- * Trade and Industrial Education
- * Vocational Home Economics

Additional information concerning the initiation of CVAE course offerings can be obtained by contacting Robert Patterson, Director, Vocational Education Programs, Texas Education Agency, Austin, Texas, (512) 463-9446.

STUDENT ELIGIBILITY

All key personnel should understand the criteria used to determine student eligibility. The placement of students in CVAE programs must be in accordance with the guidelines established by the State Board of Education. To qualify for placement in a CVAE program, a student must be considered to be *educationally disadvantaged*, defined as:

Students or individuals (other than handicapped individuals) who score at or below the 25th percentile on a standardized achievement or aptitude test or fail to maintain minimal academic competencies (one or more years below grade level in achievement in three or more academic classes). Students who meet these criteria will be eligible for Coordinated Vocational Academic Education (CVAE) programs.

VOCATIONAL ASSESSMENT

Once a student's eligibility for placement into a CVAE program has been verified, the next step will be to conduct a vocational assessment to determine the student's interests and aptitudes. Usually the vocational or general education counselor for disadvantaged students, in cooperation with the special education staff for students with disabilities, has the responsibility for administering and interpreting vocational assessment instruments. Disadvantaged students must have a vocational assessment prior to entry into vocational education during grades 9-12. Vocational assessment is a continuous process throughout a

student's participation in vocational programs. Guidelines for determining when to conduct the vocational assessment include:

1. A handicapped or disadvantaged student entering vocational programs during the seventh or eighth grades will have a Level I vocational assessment during the first year of participation in the vocational program. During such courses as career investigation, life management skills, industrial technology of Vocational Education for the Handicapped (VEH) classes, special needs students will be administered vocational interest and aptitude assessment by qualified personnel. The Level II, interest and aptitude assessment, should be administered during the second semester of the eighth grade. The administration of the Level II assessment at this time will provide the student the opportunity to gain knowledge and maturity and will allow collection of more valid assessment data.
2. A student planning to enter a vocational program in high school, grades 9 through 12, will have a Level I and II vocational assessment during the year prior to entry into a vocational program.
3. For those students who participate in vocational programs at the seventh and eighth grade level but do not enroll in vocational programs until the tenth or eleventh grade in high school, additional vocational assessment to update records may be necessary during the year prior to entry into vocational education at the high school level.
4. Ongoing assessment occurs while the student participates in vocational programs as the vocational teacher observes student behaviors in the pre-employment laboratories.

It is imperative that vocational assessment data are used to determine if the placement of a student in a CVAE program is appropriate. For example, assessment information might indicate strengths in lifting, carrying, and gross motor skills, but weaknesses in fine motor coordination and dexterity. Provided the student's vocational interests lie in the area, the student might be more appropriately placed in a training program emphasizing retail stocking as opposed to welding. Vocational placement of a student should tap into the

student's existing strengths in aptitudes. Demanding an expected level of performance of identified weak aptitudes could easily set up the student for failure and waste some of the student's valuable vocational training years.

Additional information regarding assessment of disadvantaged students may be found in the *Guidelines for Serving Special Needs Students in Vocational Education*. This document can be obtained by contacting Eleanor Mikulin, Director, Vocational Special Needs, Texas Education Agency, 1701 N. Congress, Austin, Texas 78701, (512) 463-9443.

STUDENT RECRUITMENT

Once all key personnel have an understanding of CVAE course offerings and student eligibility criteria, student recruitment can be activated. Specific responsibilities will be assumed by administrators, counselors, and academic and vocational teachers. Additional information regarding specific responsibilities will be included in the section, Roles and Responsibilities of Key Personnel.

STUDENT PLACEMENT

The responsibility for placement of students should not rest with one individual. Unlike many elective course offerings, CVAE courses provide students with the opportunity to gain useful hands-on experience in a variety of occupational areas. Administrators, counselors, and both vocational and academic teachers should provide input regarding the placement of students in CVAE programs.

If multiple CVAE courses are available in a local district, vocational assessment data should be carefully reviewed to determine the most appropriate placement. Although a formal committee meeting is not required for placement, as is the case for students qualifying for special education, the individual responsible for scheduling should solicit input from key personnel. For example, if the vocational assessment data indicate a student should be placed in a CVAE program, the CVAE instructor should be consulted prior to placement.

If possible, CVAE students' course schedules should be structured so that those teachers (both academic and vocational) who will provide instruction to the student will have the same conference periods. This will provide opportunities for planning for and enhancing coordinated efforts between academic and vocational education classes.

Administrators, counselors, and academic and vocational teachers, all have specific responsibilities regarding student recruitment and placement. Because it is important that these key personnel work together to ensure proper student placement, specific roles and responsibilities are detailed below.

ROLES AND RESPONSIBILITIES OF KEY PERSONNEL

ADMINISTRATORS

Administrators have a role in the recruitment and placement of students in most programs. However, it is imperative that administrators be actively involved in the recruitment and placement of students into CVAE programs. The support of the administration will make the difference between the success or failure of Coordinated Vocational Academic Education (CVAE). Administrators who view vocational education as less than equal to academic education may fail to provide the support which is necessary to the success of the program. Administrators must realize and communicate to faculty and parents that students need both academic and vocational skills. Tying the two together can enhance learning by assisting students in making the connection between academics and the real world.

Effective administrators who were observed in the six pilot sites designed schedules based upon students' needs. The teachers viewed their administrators as supportive, because the teachers were allowed to provide input regarding students' schedules, including changes in students' schedules. Administrators must have a working knowledge of each vocational course offering in their district. Knowing what is taught in the classroom, the type of equipment and materials necessary to provide instruction in given areas, and the type of assistance individual teachers may need, are important links in administrative effectiveness.

COUNSELORS

Individuals employed as counselors serve a diverse student population. The counselor's role is extremely important in improving the course selection and planning process and, thereby, raising the intellectual and technical capacity of the nation's future workforce. By virtue of their role, counselors must have a working knowledge of course offerings and career-development strategies. Therefore, the counselor is usually responsible for reviewing all assessment data and suggesting the most appropriate placement for each student. However, the development of students' schedules should not be the sole responsibility of the counselor.

If students' schedules are developed collaboratively by the student, parent(s), academic and vocational education teachers, and the counselor, the students are more likely to experience success in both academic and vocational classes. Data collected at each of the pilot sites indicate a significant increase in students' success when schedules are developed collaboratively. Possible reasons include: the dialogue that occurs between academic and vocational education teachers results in a greater understanding of the respective disciplines by both parties; teachers have a thorough knowledge of the students' special needs; and the fact that the teachers provided input in the development of students' schedules created a "sense of ownership."

The counselor will typically be responsible for initiating the collaborative development of students' schedules. Because of this, the counselor must establish and maintain a close working relationship with both vocational and academic educators.

ACADEMIC TEACHERS

Academic teachers who work with students on a daily basis are in the best position to know about specific students. Because students often express interests and demonstrate aptitudes in academic classes that can be seen as indicators for possible CVAE placement, academic teachers may have the opportunity to direct students toward a specific program area. These teachers are responsible for referring students' names to the counselor.

VOCATIONAL TEACHERS

The vocational teacher has a vital role in the recruitment of students into CVAE programs. One way of ensuring the continuation of specific CVAE programs is the active involvement of CVAE teachers in the recruitment process. Current information about CVAE programs must be made available to all school personnel on a continuous basis. If CVAE classes are interesting and students are experiencing success, word-of-mouth advertising will serve as the best recruiting tool, because students will not see the CVAE courses as an inferior placement. Likewise, if the administrators, counselors, and fellow teachers observe successful CVAE programs, they, too, will be receptive to recruiting and referring students for placement. The CVAE teacher should take advantage of every possible opportunity to publicize his/her program. Media coverage in the local community will serve as an effective recruiting tool and will assist in forming positive public perceptions of CVAE courses.

Once a student has been properly placed in a CVAE course, the coordination between academic and vocational teachers truly begins as they collaboratively plan and deliver instruction. The following chapter provides strategies that will assist vocational and academic teachers in working together.

CHAPTER III

LOCAL DISTRICT IN-SERVICE

NOTE: This chapter provides information on the local district in-services and includes summaries (*italicized text*) of materials presented at the six pilot sites' in-services.

INTRODUCING THE MODEL

Each pilot site was asked to select academic and CVAE vocational teachers to participate in the local district in-service provided by the project. Each in-service began with an introduction of the project's goals and objectives. (See Appendix A, Section I - Introduction.)

PRIMARY OBJECTIVE OF THE MODEL

The primary objective of the model is to provide strategies for coordination of instruction between vocational education and general education teachers. The strategies include increased "academic" content in vocational education and delivery of "academic" instruction in a more relevant manner to students.

CVAE PROGRAMS

A brief review of the history of CVAE was provided to acquaint the participants with the original purpose of CVAE and the reasons why CVAE was successful during the 1970s.

In 1968, over two hundred CVAE programs were started in Texas to serve the disadvantaged. CVAE was designed to provide occupational and academic education in a coordinated way. In the beginning, efforts to achieve coordination between the academic and vocational instruction included having separate CVAE academic instructors who were required to work with CVAE vocational teachers. Both academic and vocational teachers' salaries were supported with extra state funding in the form of bonus units. Other efforts promoting coordination included: frequent visits by TEA staff, in-service conferences held jointly for CVAE academic and vocational teachers, and academic and vocational curriculum materials designed especially for CVAE.

To participate in the program, the student must be considered to be educationally disadvantaged; this means that the student is at least one grade level behind in three or more academic areas or places below the 25th percentile on a standardized achievement test.

Currently, there are CVAE programs available in Agricultural Science and Technology, Office Education, Trade and Industrial Education, and Vocational Home Economics.

It was emphasized that those school districts which retained the strategies that worked during the 1970s continued to have successful programs. For example, the programs remained successful in those districts that continued to provide opportunities for academic and vocational teachers to plan and coordinate instruction.

MODEL STRATEGIES

The developmental committee began by looking for quick and easy communication channels. Check-lists that provide for exchange of student information, without lengthy, written communication, were developed. Samples of forms were developed that would allow for maintaining records of student enrollment and appropriate teacher contacts.

Information about what teachers need and will use was obtained from teachers at in-service meetings in the six pilot districts. In the early stages of the development of the model, the developmental committee was looking for structure. However, it was not long before the need for flexibility replaced structure. Recognizing the time constraints on and workloads of instructors, a participatory approach to curriculum development was favored over administrative mandate. The basis on which this model was built is that through communication teachers will be able to find new and improved ways of dealing effectively with colleagues, students, parents, and administration. "Coordination Through Communication" emerged as a model which incorporates the concept of cooperative exchange of ideas and techniques.

Participants were made aware of the fact that strategies identified and implemented in this model may be replicated by any school district, regardless of the district's geographic location, financial resources, ethnicity of the student population, and average daily attendance.

ESTABLISHING COMMUNICATION CHANNELS

Next on the agenda was the explanation of the specific strategies selected for use in the model. Prior to the in-service, teachers were contacted and requested to bring grade books, curriculum materials, and listings of essential elements for each course taught. Specific strategies recommended as a part of the model were demonstrated. (See Appendix A, Section II - Establishing Communication Channels.)

MODEL ACTIVITIES

With the understanding that communication was needed, the developmental committee started to look at who would be involved in that communication and who would know what is happening with students? Administrators, counselors, teachers (both academic and vocational), and parents were identified as major influences. This model concentrates on those instructors who teach students who are enrolled in CVAE programs.

In order for CVAE teachers to communicate with academic teachers who teach students who are concurrently enrolled in CVAE programs, those teachers must be identified. Following the fall in-service meeting or the initial introduction to "Coordination Through Communication," the model coordinator obtains student class schedules.

[This will vary with local districts.]

This may be done through a request to the proper administrative office. If a district does not have the capability to reproduce students' schedules on request, teachers may be asked to obtain students' schedules from the individual students in their classrooms.

[Form has been provided in Appendix C that will assist in obtaining this information.]

Once copies of students' schedules have been obtained, the model coordinator makes a list of each academic teacher involved in teaching CVAE students. The model coordinator then sends each academic teacher on the list a copy of the names of students enrolled jointly in CVAE classroom and academic classrooms. A list of academic teachers who teach CVAE students will be provided to each CVAE teacher.

[Forms have been provided in Appendix C which will assist the teachers in recording and sharing this information.]

By having the list of students concurrently enrolled in academic and CVAE programs and a list of teachers who teach these students, teachers will have a contact person should problems

should arise with a student in their classrooms. This also makes teachers aware that additional correspondence may be coming regarding one of these students.

Why is it important that communication channels be established between academic and vocational teachers? What types of information would be useful to teachers?

WHY INCREASE COMMUNICATION?

An increase in the communication between vocational and academic teachers benefits teachers and students. It is essential that CVAE educators work cooperatively with academic teachers, counselors, and administrative personnel to maximize the available services to the student to promote his/her well-being.

BENEFITS TO TEACHERS

Increased communication provides opportunities for both academic and vocational teachers to become better acquainted with each other. It results in additional resources from which to draw. There are greater problem-solving abilities because of the larger group of individuals involved. Joint effort by all teachers results in increased support by the administration.

Increased communication assists the CVAE teacher in monitoring the students' progress in other classes. Having up-to-date progress reports aids the CVAE teacher in working with students who plan to participate in clubs such as the Vocational Opportunity Clubs of Texas (VOCT).

Teachers in CVAE programs are encouraged to meet with academic teachers to ensure that students maintain the grades required for participation in club activities. Student participation in clubs such as VOCT is a very important part of the educational process and allows the student an opportunity to achieve success. Student organizations such as VOCT also provide students with a sense of belonging to a group, which previously many CVAE students may have found difficult to acquire.

BENEFITS TO STUDENTS

An increase in communication between vocational and academic teachers will help in establishing common educational goals for students. Teachers will become more aware of an individual student's achievement and abilities. A student's class performance may be an important factor in a teacher's assessment of the student's potential. By becoming aware of the

student's progress in other classes, the teacher may be able to motivate the student to succeed in that classroom as well. Some difficulties in coping with problem students may be resolved through teachers exchanging management techniques or information about the students. Such information benefits teachers and the students. By working together, academic and CVAE teachers provide unified assistance efforts for students. The end result is a more comprehensive and relevant education for students.

BARRIERS TO COORDINATION

In spite of all the benefits that can be derived from coordinated planning among school personnel, a number of potential barriers should be understood so that their impact can be eliminated or minimized. This awareness is an important initial step in achieving true coordination of vocational and academic education.

PERSONAL BARRIERS

- 1. Lack of commitment, complacency, or indifference by team members.*
- 2. Lack of trust (suspicion).*
- 3. Lack of respect; respect may be missing among team members.*
- 4. Lack of skills in decision making, problem solving and conflict resolution.*
- 5. Jealousy.*
- 6. Personality conflicts.*
- 7. Power struggles.*
- 8. Competition.*

PROFESSIONAL BARRIERS

- 1. Philosophical differences may exist among team members.*
- 2. Inability of individuals to link their expertise to those of the other team members.*
- 3. Perception on the part of one or more team members that another member is less-qualified.*
- 4. A diversity in the amount or level of professional training of team members.*
- 5. Lack of flexibility (e.g. inflexible schedules, limited time).*
- 6. Feelings of territoriality or "turf protection" (rivalry, professional insecurity).*
- 7. Different terminology used by the various disciplines.*
- 8. Poor communication among individuals from different professional backgrounds.*

GROUP DYNAMIC BARRIERS

1. *Roles and responsibilities among team members of the team are not understood.*
2. *A single individual may dominate the team's operation.*
3. *Inability of team members to delegate and share responsibilities based on their various strengths.*
4. *Lack of authority on the part of team members.*

(Colby, 1986; Gilroy & Swan, 1984; Sarkees & Scott, 1985)

FACILITATORS TO COORDINATION

A number of facilitators to effective coordination and cooperative planning have been identified. Among these are:

1. *A constant desire and commitment among the team members to work together with the primary purpose of helping the student succeed.*
2. *A feeling of security, trust, and mutual respect among the members of the team.*
3. *A climate of "open communication" among the team wherein ideas, feelings, and values are respected and shared. The members explore and choose solutions to problems which would be most beneficial to the student.*
4. *The role and responsibilities of each member are defined and acknowledged.*
5. *Professional jargon is minimized.*
6. *Goals and time lines are determined.*
7. *The planning team has a member(s) who helps facilitate and keep minutes of the meetings.*
8. *The team exercises effective conflict resolution strategies when needed.*

(Gilroy & Swan, 1984; McNulty & Soper, 1983; Tindall, 1980)

Through the use of small groups, made up of a combination of vocational and academic teachers, participants were provided the opportunity to establish a framework for communication. Group members were asked to exchange enrollment information in order to identify students concurrently enrolled in more than one classroom. Students' grades, attendance, behavior, and other problems were discussed. Common problem areas were identified and joint problem-solving efforts made.

VOCATIONAL/ACADEMIC ADVISORY COMMITTEE (VAAC)

In response to recommendations #3, #3a, #3b, and #3c, the second activity of the model for "Coordination Through Communication" was developed. (Review these recommendations.) (See Appendix A, Section III - Vocational/Academic Advisory Committee (VAAC).

This activity takes the form of a "vocational/academic advisory committee," which is simply a committee formed to give advice concerning academic subjects. Each CVAE teacher is asked to establish a vocational/academic advisory committee. This advisory committee consists of one representative from mathematics, science, social science, and language arts. The CVAE teacher meets with the advisory committee at the beginning of the school year to review the essential elements for CVAE courses. As the essential elements for CVAE courses are reviewed, a comparison is made between these essential elements and the essential elements required in the academic areas of mathematics, science, social science, and language arts. When the essential elements are compared, many commonalities are found. As the committee works, they are asked to identify areas in the CVAE curriculum where academics are currently being taught. It is often difficult for CVAE teachers to recognize areas of their subject matter as being academic in content. However, the committee is asked to assist the CVAE teacher in identifying additional areas in the curriculum where academics might be included.

Most teachers feel that they have more to teach than they can cover. Because of this attitude, the model does not recommend adding instructional requirements in the CVAE classes. By simply covering the required essential elements in their courses, CVAE teachers spend more than 20% of their time on academics.

The vocational/academic advisory committee assists the CVAE teacher in the integration of basic skills in the classroom. After identifying academics in the CVAE curriculum, the committee is asked to discuss teaching methods. Each person on the committee has developed his/her own style of teaching. Committee members benefit from sharing teaching experiences. Not only will the CVAE teacher benefit from working with the VAAC, the academic teachers will discover that by working with CVAE teachers and other academic teachers, they are provided with new ideas and activities that may be used in teaching academic principles. Through working with the committee, academic teachers will identify practical applications of basic skills that may then be used in the academic class to make the presentation of academic principles more relevant to the students.

Following the initial meetings, the committee is encouraged to meet as needed. The VAAC works to provide assistance on an ongoing basis.

GENERALIZABLE SKILLS

The lack of basic job-related academic and interpersonal skills are two fundamental reasons why disadvantaged students will: (a) drop out of school, (b) become underemployed or unemployed after leaving school or (c) be unable to maintain employment. If the primary objective of vocational education is to assist students in developing employable skills and providing for their successful transition from school to work, then the development of basic or generalizable skills literally becomes vocational skills which should not be underestimated or overlooked by the vocational teacher.

There are a number of reasons why programs in vocational education can provide an excellent environment and opportunity for a learner to acquire basic or generalizable skills (National Commission on Secondary Vocational Education [1984]):

- 1. Vocational education is motivating. Students typically enjoy their involvement in relevant occupational activities.*
- 2. In the vocational laboratory, the student puts basic skills to practical use in interesting, "real world" learning experiences.*
- 3. Instruction in vocational programs is usually individualized; students receive immediate feedback and can progress at their own rate.*
- 4. Vocational education provides the students with an opportunity to improve basic interpersonal relations and work skills as a result of the student's involvement on group projects.*
- 5. Vocational education often serves as the "glue" that holds the students' total education together, making academic work meaningful and goal-oriented.*
- 6. Vocational education taps the students' natural interests in the world about them and allows them an opportunity to use their tactile and kinesthetic senses in learning. The field-based activities motivate students and provide concrete ways to learn basic and abstract skills.*
- 7. Through application, students develop competence and confidence.*

GENERALIZABLE ACADEMIC SKILLS

Greenan has identified the four generalizable skill areas which are basic and necessary for the student's success in vocational programs and future employment. For the purpose of this model, we will be dealing with the following two generalizable skills (Greenan, 1986):

- 1. Mathematics skills*
- 2. Communication skills*

It should be noted, however, that the student's proficiency in these basic skills is not a guarantee of academic or occupational success, but having these skills will certainly increase the student's chances for employment in the various occupational settings (Greenan, 1986).

Mathematics Skills

It is important for the vocational educator to determine the kinds of math used by workers in occupational fields. In this way, the student will be learning the appropriate mathematical skills he or she will need for a chosen vocation. If a student lacks the basic math skills required for entry into his/her chosen occupation, it becomes the responsibility of mathematics and vocational educators to work together and provide structured supplemental instruction for the student. There are a number of basic mathematical skills which can be generalized to many occupational areas.

Within the context of vocational education, the instructor has a number of opportunities to assist students with math deficiencies by weaving basic mathematical concepts into the student's ongoing instruction (King-Fitch, 1985).

In preparing students with the basic math skills needed for gainful employment, the vocational and mathematics educator must work cooperatively in identifying basic mathematics skills used in the various vocations and then adjust their curricula and instruction to meet the student's occupational needs and goals.

Communication Skills

The second generalizable skill area is communication skills. Communication skills consist of the following five components: (a) words and meanings, (b) reading, (c) writing, (d) speaking and (e) listening. Each of these components has been broken down into generalizable skill elements to which educators can refer for planning and instruction.

With reference to the reading component, a vocational instructor will have students who function at many different reading levels. Those special needs students who have a great deal of

difficulty with reading must be helped by reading specialists, educators, and support personnel. Too often, students will drop out of school because of their inability to comprehend the written word. In addition, the lack of reading skills can alienate students and seriously limit employment opportunities (Sarkees & Scott, 1985).

Concerning writing skills, vocational educators should not underestimate the significance of students' acquiring basic writing skills. In the world of work, being able to put thoughts on paper is often the best way to communicate. In addition, the majority of jobs call for writing at some time or another (Malowney, 1985).

In the vocational classroom or laboratory, the vocational educator can greatly assist the student in developing basic writing skills. It is not the vocational educator's responsibility to help the student develop literary style and technique; however, the vocational educator can assist the student with: (a) legible writing, (b) correct spelling, (c) capitalization, (d) identifying appropriate form and style, (e) choosing appropriate words, (f) using correct grammar, and (g) proper punctuation (Malowney, 1985).

Greenan's last two communications skills (speaking and listening) are two major aspects found in oral communication--one needs to be both a good speaker and a good listener for effective oral communication to occur. In an effort to assist students develop or improve their basic oral communication skills, the vocational educator should: (a) assess the student's oral communication skills, (b) create an appropriate learning environment within the classroom or laboratory, and (c) use appropriate instructional techniques (Bell & King-Fitch, 1985).

In spite of a high level of proficiency in a vocational skill, if a student has not acquired basic communications skills (reading, writing, and oral skills), he or she will be at a great disadvantage in the world of work. Communication skills are an integral part of a successful worker's life. Deficiencies in this area seriously limit an individual's employment potential, longevity, and promotional worth. Vocational educators must impress upon their students the value of basic communication skills and work jointly with other educators in helping students acquire these important skills.

SUMMARY OF GENERALIZABLE SKILLS

Employers, parents, and society at large clearly want students to learn skills which are basic to employment. Vocational instructors, working jointly with parents and other educators, can greatly assist students who are lacking in these skills. The vocational classroom provides an

excellent environment for students to relate the basics to meaningful occupational activities. It is, therefore, incumbent upon educators to develop course materials and programs which are related to gainful employment. When students recognize how their education is being utilized in "real world" activities, they generally will want to learn the basic educational skills which are necessary for their survival in the world of work.

Participants were given the opportunity to sample the process of working with a Vocational/Academic Advisory Committee. Vocational and academic teachers compared essential elements for courses, identifying where academic principles were currently being taught in vocational classrooms and where additional academic principles might be included. Teachers exchanged information about teaching methods and activities used to teach various academic concepts. Joint assignments for students on related subjects were discussed, with teachers looking at what would be possible within their local district. Plans for team teaching and the development of joint lesson plans were discussed.

While information presented was of benefit, the opportunity the teachers had to work together and actually coordinate course content was of primary importance. Personal involvement allowed teachers to experience first-hand the possibilities of coordinating vocational and academic education.

Because the student who is placed in a CVAE program is educationally disadvantaged, it is essential that instruction be delivered in a manner which will maximize learning. Therefore, an understanding of learning styles is necessary. Participants were made aware of the different styles and were presented with an instrument which can be used to assess individual student's learning styles. Simply knowing the manner in which the student learns best is of little benefit unless a teacher adjusts his/her teaching style to correspond. Therefore, participants were made aware of teaching strategies that address each of the four learning styles.

Open communication between vocational and academic teachers is truly the key to the success of improved coordination of vocational and academic programs. The afternoon session was devoted to specific strategies for establishing and maintaining communication channels.

If a single reason for the ineffectiveness of many CVAE programs could be identified it would be that strategic collaborative instructional planning did not occur. Vocational and academic

teachers must be given opportunities to develop a strategic planning framework, otherwise a coordinated approach will never materialize. Jones et al., (1987) in Strategic Teaching and Learning: Cognitive Instruction in the Content Areas details a learning framework for strategic instructional planning. This framework consists of six key elements:

- 1. Establishing the content priorities for the lesson or unit of study;*
- 2. Establishing the basic organization of information that will facilitate student learning;*
- 3. Determining the outcome or criteria for evaluation of student's success;*
- 4. Anticipating what prior knowledge students possess about the topic and the basic organizational frames that will be used;*
- 5. Checking the text and resource materials to determine if vocabulary and other features will pose problems for the readers; and*
- 6. Constructing the sequence of instruction, having anticipated what strategies students will need to learn from the material and at what level students have internalized these strategies.*

Teachers' planning must involve providing opportunities for students to apply what they have learned. It is important that students understand the relevancy of learning. Collaborative instructional planning between academic and vocational teachers can assist in establishing relevancy for learning.

(The in-service model found as an appendix on page 51 to page 159 provides a foundation for all local district to use in improving coordination efforts.)

ADDITIONAL IN-SERVICE TOPICS

Once the local district in-service of the model has been completed, it is recommended that additional joint in-service training be done with vocational and academic teachers. Following are recommended in-service topics:

Learning Styles/Teaching Styles

Modification of Instructional Methods for Special Needs Students

How to Work in Small Groups

Applications and Evaluations

Integrating Academics into Vocational Education

Critical Thinking, Study, and Organizational Skills

Concepts to Bring Ideas Relevant to Technology into Academic Classrooms

Cooperative Learning

Cooperative Teaching - Applications in Academics From Vocational Classrooms

Cooperative Teaching - Applications in Academics From Academic Classrooms

Importance of Student Clubs

Assessment Programs

Resources Available to Teachers

CHAPTER IV

IMPLEMENTING THE MODEL

Coordinated instructional planning and delivery between academic and vocational education is critical to the success of CVAE programs. From observing and evaluating the six pilot sites, the development committee determined that good communication improves coordination between vocational and academic teachers. This model subscribes to Fullan's (1982) theory that "it is the bond of shared understanding and common language that sustains innovations and reduces the stress of change."

Increased communication between vocational and academic teachers results in (1) teachers who are better acquainted with their colleagues and who are therefore more at ease in making recommendations; (2) additional resources; (3) greater problem-solving abilities; and (4) increased administrative support.

Students ultimately benefit from more effective communication among teachers. Advantages to students include (1) cooperation toward establishing common goals for students; (2) increased awareness of individual achievements and abilities; and (3) unified assistance efforts. The end result is a more comprehensive, relevant education for all students.

This chapter addresses specific strategies and procedures designed to ensure effective coordination between vocational and general education teachers as they plan and deliver instruction. Establishing a framework for communication is the district's first consideration.

ESTABLISHING COMMUNICATION CHANNELS

The framework for establishing communication channels is initiated at the beginning of the school year in the local district in-service. All high school personnel are given an overview of CVAE goals and objectives, and the implementation of the model, Coordination Through Communication, is fully explained.

Subsequently, specific administrators, counselors, and academic and vocational teachers who deal directly with those students enrolled in CVAE programs participate in an intense training session, using the model in-service materials located in page 51 to page 159 of this handbook. The training session serves as the impetus for initiating and maintaining ongoing communication among the participants throughout the school year.

ONGOING COMMUNICATION STRATEGIES

JOINT CONFERENCE PERIODS

Structuring schedules so that CVAE teachers and academic teachers have the same conference periods affords opportunities during the school day for these educators to plan and coordinate instruction. Department chairs in larger districts may find it more feasible to match their own conference hours with those of the CVAE teachers and thereby serve as the liaison between CVAE and academic instructors.

VOCATIONAL/ACADEMIC ADVISORY COMMITTEE

The use of the Vocational/Academic Advisory Committee (VAAC) is an additional option that may meet the needs of certain school districts in which CVAE teachers find it difficult to meet with all academic teachers who have students concurrently enrolled in the CVAE program. The CVAE teachers select one academic teacher from each academic area to serve in an advisory capacity.

DOUBLE-PERIOD CONFERENCES

The most successful CVAE programs schedule two, fifty-minute conference periods for CVAE teachers. This extra conference provides the time for CVAE and academic teachers to communicate and plan coordinated activities.

BEFORE OR AFTER SCHOOL MEETINGS

Arranging meetings before or after school hours solves scheduling conflicts which prohibit setting joint academic and vocational conference periods and/or two, fifty-minute conferences for CVAE teachers. Compensatory time accrued with credit toward local district in-service training is a means of overcoming resistance to sessions before or after school hours. **To ensure successful communication and effective coordination, academic and vocational teachers meet at least every three weeks.**

Regardless of the ongoing communication strategy the district chooses, the model provides a step-by-step process to fulfill the coordination concept.

IMPLEMENTING SCHEDULED COORDINATION MEETINGS

STEP 1: Following the fall in-service, the model coordinator obtains student class schedules from either the administrative office or directly from the students. Once the schedules are secured, a list of students enrolled in CVAE programs is provided to the academic teacher. In turn, a list of academic teachers with students concurrently enrolled in CVAE programs is given to the CVAE teacher. This information exchange identifies program participants and potential Vocational/Academic Advisory Committee members.

STEP 2: Prior to each coordination meeting, teachers identify students in their classrooms who may be in need of assistance. Information request forms (See Appendix C.) are used to secure knowledge from other teachers about specific students. Teachers use these forms and other references relative to a student's grades, attendance, and behavior to assess the difficulties impeding the student's ability to succeed.

STEP 3: Teachers meet at least every three weeks to discuss students who may be having problems and/or to discuss students' progress. Members of the Vocational/Academic Advisory Committee attend along with any teacher who has a student in his/her class who is having a problem.

FIRST MEETING: The goal of the meeting is to establish the importance of coordination between vocational and academic programs. This meeting provides an opportunity for teachers to become better acquainted with each other. The first coordination meeting sets the tone for future meetings. (A sample agenda for the first meeting is provided in Appendix C.)

SECOND MEETING: Establishing communication channels and identifying students serve to promote coordination efforts. In the second meeting, teachers handle business relating to students' grades, attendance, and behavior, or other problems students may be experiencing.

During this meeting, essential elements for the academic and vocational courses are compared. Commonalties among the courses are identified to improve instruction

coordination. This session offers the teachers the opportunity to exchange successful teaching methods and activities relating to the shared concepts.

SUBSEQUENT MEETING TOPICS

At subsequent meetings, the committee:

- Compares individual student progress
- Identifies common problem areas
- Assists in problem solving
- Coordinates instruction
- Plans joint assignments for students on related subjects
- Develops joint lesson plans
- Makes plans for team teaching
- Plans classroom visitation
- Exchanges materials

Keeping records of each meeting allows the teachers to check the progress toward the goals and objectives set for students. Through their cooperation, academic and vocational teachers are better equipped to meet the students' needs. Improved communication makes early intervention possible. The coordination committee meetings make teachers aware of student progress in all areas on a regular basis. With the combined information available, the teachers are able to make decisions about intervention methods such as tutorial assistance. The early detection of a problem often means the difference between student success and student failure.

JOINT ASSIGNMENTS

The use of joint assignments is an additional ongoing communication strategy. Examples of joint assignments include: teachers serving as guest speakers for other classes; academic and vocational teachers serving together on district or campus committees; academic teachers serving as co-sponsors for VOCT and other clubs; and vocational and academic teacher being paired for lunch duty, hall duty, and extracurricular activities. The more opportunities vocational and academic teachers have for communicating, the more coordination will come naturally.

CHAPTER V

INCREASING ACADEMIC CONTENT IN VOCATIONAL EDUCATION

Once the communication channels are open, the academic teachers assist by suggesting strategies for increasing academic content in vocational education. Although vocational teachers include many academic principles in their instruction, members of the Vocational/Academic Advisory Committee (VAAC) offer invaluable guidance in helping the CVAE teacher link academic principles to the "real world." The CVAE teacher chooses instructors from the academic areas of mathematics, English, science, and social studies to participate in this advisory capacity, and these VAAC members attend the triweekly coordination meetings.

Using the forum of the Vocational/Academic Advisory Committee, teachers work toward increasing the academic content in vocational classes. Essential elements for each course are compared. The VAAC works to identify those areas in the vocational curriculum where academics are currently being taught and those areas where additional academic principles can be included. Members discuss teaching methods and share classroom activities that may be used to make academic instruction more relevant to students. Also, VAAC members work together to plan joint student assignments, joint lesson plans, and team teaching when appropriate.

Vocational teachers use various methods to integrate academic principles into vocational courses. Academic principles become a part of every discipline through interactive curriculum. Including academic skills in CVAE courses strengthens ties between vocational and academic educators. When this integration is successful, teamwork is fostered among the individuals involved. This cooperation enables teachers to recognize areas of concern before a problem develops.

Vocational courses often provide an opportunity to present abstract academic concepts in concrete terms. (Parkhurst, 1986.) Written communication skills are reinforced in vocational classes by requiring students to use correct grammar, punctuation, and spelling on assignments. Students in general construction trades use math skills to figure angles and

measurements on projects designed for VOCT contest. Reading and math skills are combined by vocational home economics students to adjust measurements in a standard recipe.

STRATEGIES FOR DELIVERING RELEVANT ACADEMIC INSTRUCTION

Strategies for establishing relevancy of academic principles take many different forms. For example, in English class students may write letters of application to potential employers for vocational cooperative training class. The use of laboratory activities assists students in comprehending scientific principles by making them tangible. Studying the chemistry of combustion helps students understand how a gasoline engine works. Mathematic principles are used to calculate stresses in building a model. Math classes use measurement tools from vocational class while studying the importance of fractions. Vocational terminology may be used in English class as a part of a vocabulary lesson. Activities such as these, help students make the connection between abstract concepts and the real world. Vocational courses can become a bridge between the way basic skills are taught in academic classrooms and the way they are used in life. Rarely are various academic skills used in isolation. Most often, the basic skills are used as they are taught in vocational education courses. (Parkhurst, 1986.)

ESTABLISHING ACADEMIC RELEVANCY THROUGH CLUB PARTICIPATION

Students clubs and organizations provide an excellent opportunity for establishing the relevancy of academic concepts. Through participation in club meetings, students learn leadership skills along with the use of parliamentary procedures. By being a member of the club, the student learns the importance of working with others.

As participation in club activities, students often construct individual or group projects. The project may be an individual class notebook, containing a record of the students involvement in the CVAE class throughout the school year, drawings, and written information. Students' notebooks provide an excellent opportunity for involvement with academic teachers. Other projects requiring precision measurement, detailed drawings, and a written description of procedures used, involve the use of many academic skills.

Students take part in many different types of contests, including: job interviews, prepared speeches, extemporaneous speaking, job skill demonstrations, club business procedures, and opening and closing ceremonies. Academic teachers can provide valuable assistance to students preparing for these contests.

District and state contests, provide students with the opportunity to compete with other students who are on the same academic level. Local and state contests, provide an opportunity for students to display individual and group projects. Their pride in their accomplishment is evident. It is exciting to watch the faces of students as they examine the blue, red, or white ribbon awarded to their projects or receive a trophy as a contest winner. In the article "Making Vocational Education More Effective for At-Risk Youth" that appeared in the *Vocational Education Journal*, John Bishop talks about the importance of club participation and states, "The recognition that students receive from participating in local and regional 4-H, VICA, and DECA contests helps them develop pride in their occupational skills and motivation to learn more of them. Award and honor systems should therefore be designed so that almost every student who makes the effort can receive at least one award or honor before graduation."

CHAPTER VI

EVALUATION AND FOLLOW-UP

STUDENT EVALUATION

Strategy 1-A2 of the *Master Plan for Vocational and Technical Education* states that *Texas Educational Assessment of Minimum Skills* (TEAMS) scores will be used to assist in evaluating the academic performance of students taking vocational courses to satisfy elective course requirements. The fact that Texas is now moving from the TEAMS to *Texas Assessment of Academic Skills* (TAAS) creates a greater need for academic and vocational teachers to coordinate instruction. Higher-order thinking skills will become a necessity; therefore, rote memorization must be de-emphasized. Vocational course offerings will provide students with opportunities to apply academic principles to real work settings. It is, increasingly, becoming imperative that students have the ability to transfer knowledge from one subject area to another.

In response to the changes in testing, teachers must work together to make necessary changes in their style of teaching. The need for new strategies and techniques in regard to questioning, classroom management, and evaluation must be identified and implemented. Coordinated efforts must be made by academic and vocational teachers to evaluate students based on their ability to move beyond brief factual responses. Students must be able to utilize a broad knowledge base. Through coordination between academic and vocational classes, students will be better prepared to identify problems, find information, evaluate the information, and use it effectively.

STUDENT FOLLOW-UP

Success of CVAE programs is not limited to follow-up reports that simply indicate the place of employment of students following training in a CVAE program. This type of follow-up data is often hit-or-miss, because it depends on the ability of teachers to locate ex-students. The operational definitions and methodology used in these reports contribute to the error rate in the data. Unfortunately, these reports do not take into consideration the fact that knowledge obtained by students through the combination of CVAE and academic courses is transferable to many different areas. Thus, the relationship of job training and employment is not always apparent.

The evaluation of students should also include information in regard to students' satisfaction, absenteeism, retention, GPA, TEAMS/TASS scores, graduation rates, employment, and postsecondary training.

MODEL EVALUATION

The success of the model can be measured in subjective as well as objective measures. Evaluations completed by CVAE and academic teachers and administrators will provide an important source of information about the success of the model. Teachers will be provided the opportunity to rate each component of the model in terms of effectiveness. (Evaluation forms are located in Appendix E.)

Administrators may evaluate the impact of the model on the district. They may wish to look at the degree of teacher involvement in conjunction with student success.

The evaluation of the model should be conducted on both a semester and yearly basis. Any component which did prove effective should be reviewed carefully in order to determine modifications that may be necessary.

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VIDEO TAPES

Basic Skills for Food Service Workers: Communication Skills.
The Johnson/Roudolph "Career Finder Video Series"
1027 Broadway
Bowling Green, KY 42101-9941

Reading a Ruler. The School Co.
Career Development Software, Inc.
207 Evergreen Drive
Van Couver, Washington 98661

Shop Math. The School Co.
Career Development Software, Inc.
207 Evergreen Drive
Van Couver, Washington 98661

Why Study Math? The School Co.
Educational Development and Training Center
East Texas State University
Commerce, Texas 75428

Why Study English? The School Co.
Educational Development and Training Center
East Texas State University
Commerce, Texas 75428

INDIVIDUALS

Carol Marshall, Director
The Center for Slower Learners
4949 Westgrove, #180
Dallas, Texas 75248
(214) 407-9277

Eleanor Mikulin, Director
Vocational Special Needs
Texas Education Agency
1701 N. Congress Avenue
Austin, Texas, 78701
(512) 463-9443

EDUCATION SERVICE CENTERS

Region I Education Service Center
1900 West Schunior
Edinburg, Texas 78539
(512) 383-5611

Region III Education Service Center
1905 Leary Lane
Victoria, Texas 77901
(512) 573-0731

Region V Education Service Center
2295 Delaware Street
Beaumont, Texas 77703
(409) 835-5212

Region VII Education Service Center
P.O. Drawer 1622
Kilgore, Texas 75622
(214) 984-3071

Region IX Education Service Center
301 Loop 11
Wichita Falls, Texas 76305
(817) 322-6928

Region XI Education Service Center
3001 North Freeway
Fort Worth, Texas 76106
(817) 625-5311

Region XIII Education Service Center
5701 Springdale Road
Austin, Texas 78723
(512) 929-1313

Region XV Education Service Center
P.O. Box 5199
San Angelo, Texas 76902
(915) 658-6571

Region II Education Service Center
209 North Water Street
Corpus Christi, Texas 78401
(512) 883-9288

Region IV Education Service Center
P.O. Box 863
Houston, Texas 77001
(713) 462-7708

Region VI Education Service Center
3332 Montgomery Road
Huntsville, Texas 77340
(409) 295-9161

Region VIII Education Service Center
100 North Riddle Street
Mt. Pleasant, Texas 75455
(214) 572-8551

Region X Education Service Center
P.O. Box 1300
Richardson, Texas 75080
(214) 231-6301

Region XII Education Service Center
P.O. Box 1249
Waco, Texas 76703
(817) 756-7494

Region XIV Education Service Center
Route 1, P.O. Box 70A
Abilene, Texas 79601
(915) 676-8201

Region XVI Education Service Center
P.O. Box 30600
Amarillo, Texas 79120
(806) 376-5221

Region XVII Education Service Center
4000 22nd Place
Lubbock, Texas 79410
(806) 792-4000

Region XIX Education Service Center
P.O. Box 10716
El Paso, Texas 79997
(915) 779-3737

Region XVIII Education Service Center
P.O. Box 6020
Midland, Texas 79701
(915) 563-2380

Region XX Educaiton Service Center
1314 Hines Avenue
San Antonio, Texas 78208
(512) 271-7611

APPENDICES

APPENDIX A

TRAINER'S MANUAL

HOW TO USE TRAINER'S MANUAL

The trainer's manual is designed to assist you in preparing workshop presentations. A brief review of each section of training materials is also provided. Read each section of the training materials carefully in order to become acquainted with the materials and how they are to be presented. Once you have become familiar with the model and materials, you are ready to plan your in-service training.

Use II: Planning Your Workshop

The purpose of this information is to help you think through the training you will be providing. Read each of the suggestions prior to making plans. Using the suggestions as a guide, make your plans. You may wish to list each stage in a notebook, filling in the planning information as you go.

What do you want the workshop to do?

What do the participants need?

Workshop Goals and Objectives

Content of Training

Logistical Arrangements

Workshop Format

TRAINER'S MANUAL

This manual is designed to help you motivate teachers and others who are interested in improving the coordination of vocational and academic programs. It provides information on (1) design of the training model and (2) how to plan your workshop.

I: DESIGN OF THE TRAINING MODEL

This training model is used to provide teachers with strategies that will ensure effective coordination of instruction in vocational and general education for students enrolled in Coordinated Vocational Academic Education programs, grades 9-12. These strategies include increased "academic" content in vocational education and delivery of "academic" instruction in a more relevant manner to students. The model contains three sections: (1) Introduction, (2) Establishing Communication Channels, and (3) Vocational/Academic Advisory Committee (VAAC). Each section was developed in sequence, and it is recommended that materials be presented in the same manner.

As you will note, each section is designed with a similar format. The main objective and specific objectives provide the framework for the presentation. Information is presented in a narrative format, and masters for transparencies, which may be used to reinforce information, have been included.

Training Video

In addition to the training manual, a videotape has been developed. The video, "Coordination Through Communication," follows closely with the format of the workshop materials. The video may be used alone or as a part of the training program.

An overall workshop evaluation instrument has been included in order to determine the effectiveness of the workshop. All evaluation procedures are optional.

Following is a brief description of each section of the model. The main objective, specific objectives, and approximate time line for instruction are given.

SECTION I - INTRODUCTION

MAIN

OBJECTIVE: To establish the importance of the model to both vocational and academic teachers.

SPECIFIC

OBJECTIVES: Make participants aware of:

1. The basis for development of the model;
2. The primary objective of the model;
3. Current status of CVAE;
4. Requirements for student enrollment;
5. Types of CVAE programs; and
6. Importance of cooperation of teachers.

The rationale for the development of the model will be provided. An update of the program requirements and programs offered will be presented. The importance of the cooperation of all teachers will be stressed.

The instructional time for this section is approximately one-half hour.

SECTION II - ESTABLISHING COMMUNICATION CHANNELS

MAIN

OBJECTIVE: Make participants aware of the importance of increased communication in regard to the coordination of vocational and academic education.

SPECIFIC

OBJECTIVES: Make participants aware of:

1. Their personal role in establishing communication channels;
2. The advantages of increased communication to teachers;
3. The advantages of increased communication to students;

4. Procedures for working in small groups with other teachers;
5. Procedures for comparing student enrollment to determine common students;
and
6. Procedures for comparing student progress.

[PARTICIPANTS WILL NEED: Grade books for classes and writing tablets.]

Methods for establishing communication channels will be discussed. Suggestions for monitoring student progress will be made. The importance of up-to-date information in regard to student attendance, behavior, grades, etc., will be stressed. Criteria for participation in extracurricular activities and the importance of club activities for students enrolled in CVAE classes will be discussed. Advantages of increased communication will be stressed. Barriers to coordination will be identified, followed by specific coordination strategies.

This section provides practical hands-on application of the strategies developed to increase communication. Through access of up-to-date information regarding students, teachers will be able to improve their effectiveness.

The instructional time for this section is approximately one to two hours. Time needed will be determined by the number of activities used. Allow one-half hour for each activity.

SECTION III - VOCATIONAL/ACADEMIC ADVISORY COMMITTEE (VAAC)

MAIN

OBJECTIVE: Participants will be made aware of how a Vocational/Academic Advisory Committee works.

SPECIFIC

OBJECTIVES: Make participants aware of:

1. Who should be involved in the VAAC;
2. How the VAAC is used;
3. How often the VAAC will meet;
4. Advantages of VAAC to vocational teachers;

5. Advantages of VAAC to academic teachers;
6. Compare essential elements for specific courses;
7. Identify common academic principles being taught;
8. Exchange ideas for establishing relevancy; and
9. Make plans for future individual or group meetings.

[PARTICIPANTS WILL NEED: Copies of essential elements for courses they are teaching, curriculum materials, and writing tablets.]

Recommendations upon which this model was based will be reviewed. The need for an increased awareness of the importance of establishing relevance of academic principles will be discussed. The simplicity of the design of the Personal Academic Advisory Committee will be stressed. The trainer will point out the advantages offered through participation in such a committee to all teachers involved. Participants will be provided information regarding generalizable skills needed for both educational and employment success.

This section provides practical hands-on application of the strategies developed to assist with the increase of academics in the vocational classroom.

The instructional time for this section is approximately one to two hours. Time needed will be determined by the number of activities used. Allow one-half hour for each activity.

II: PLANNING YOUR WORKSHOP

The purpose of this information is to help you think through the training you will be providing. The following are suggestions which will help you develop an organized and useful workshop.

WHAT DO YOU WANT THE WORKSHOP TO DO?

One of the first things you will need to do is determine or what you, the trainer, would like to happen as a result of the workshop. Take into consideration factors such as time available and your current skills. We would hope that you will desire to:

- * Get vocational and academic teachers excited about working together.

- * Assist vocational teachers in recognizing areas in which they are currently teaching academic principles.
- * Assist vocational teachers in identifying additional opportunities for including academic principles in their teaching.
- * Assist academic teachers in identifying additional opportunities for establishing the relevance of academic principles.
- * Tie all areas of education together for the benefit of the student.

Once you have thought about what you would like the workshop to do, you are then ready to look at the participants' needs.

WHAT DO THE PARTICIPANTS NEED?

In looking at what the participants attending the workshop will need, you must first:

- * Determine what the participants need to know.
- * Determine what the participants already know.
- * Determine what skills and knowledge you could address during the training session.

Who will be the participants? Are the vocational and academic teachers in your school district currently working together on committees, programs, or projects? How much interaction is currently taking place between/among vocational and academic teachers?

If the teachers in your district are already finding ways of working together, then your job is halfway complete. Your job will be to reinforce this behavior. Provide opportunities for these teachers to transfer this coordination into the classroom.

If, on the other hand, the vocational and academic teachers in your district have not established communication channels, the training must then be more specific. Effective communication must be demonstrated. Opportunities for coordination of activities and programs must be planned and provided.

Be realistic in the training you plan to provide. The establishment of effective communication channels takes more than one setting. Look at the workshop as an

introduction of the idea. Plant the seed that "Coordination Through Communication," is simple, easy, and will benefit both teachers and students.

LOOKING AT WORKSHOP GOALS AND OBJECTIVES

Each section of the model includes a listing of both the main objective and specific objectives. The goal(s) for the workshop can easily be determined by looking at what you would like for the workshop to do. By highlighting the goals and objectives, you will clarify for yourself the overall purpose of the workshop.

CONTENT OF TRAINING

Become familiar with the training materials early in preparing for the workshop. Look at areas where you may wish to add information. You are encouraged to include additional resources and localize the material to meet the needs of your district.

LOGISTICAL ARRANGEMENTS

Make arrangements for the workshop early. Dates, times, location, equipment, and other details are very important to the success of the workshop. The best-made plans may have to be changed; however, don't panic. You may be the only person aware of the changes. Be prepared, yet be flexible.

Time Schedule

The presentation of this model may take more than one format. You may wish to make the model a part of the fall in-service for your teachers. Each section may be presented as a special training session. It is recommended that if the model is divided into more than one training period, these training periods should occur in close time periods.

Facilities

Pay close attention to the room you choose for the workshop. Make sure the lighting, temperature, and furnishings are appropriate to the group with whom you will be working. Other considerations include:

Room size: The room should be large enough to accommodate the anticipated number of participants but not so large that individuals feel scattered.

Appropriate Arrangement: The room should allow for movement and privacy in group work.

Equipment: Make sure you have the necessary equipment such as overhead projector, screen, VCR, monitor, chalkboard, etc. It is important to check out equipment to ensure proper working condition prior to the workshop.

Materials

Review the training materials carefully to determine which materials you wish to use for handouts. If you have added resource materials, be sure to include them in planning. Cost of reproduction should be a consideration.

SETTING UP THE FORMAT FOR YOUR WORKSHOP

Once you have accomplished the above steps, it will be possible to see what is to be accomplished in the workshop and the best methods to use. The next step takes the information you have and puts it into a plan which can be executed with confidence.

In setting up the format for your workshop, you will want to answer the following questions:

1. What will be the sequence of events? (What will happen from the opening remarks to the final evaluation?)
2. Will you have the right balance of activities? (e.g., lecture, group work, activities)
3. What resources will you use?
4. How much time will it take to cover each concept?
5. How will your own ideas fit into the training plan?

Sequence

The sections of the in-service model are organized in a consecutive manner. Therefore, it is recommended that sections be presented in the same manner. If you are planning to break the training into more than one training period, it is suggested that these training periods occur over a relatively short period of time.

Activities

When planning the types of activities you will use in presenting the workshop, keep in mind the type of participants with whom you will be working. Think back to how you have felt attending various workshops. How could the activities have been structured in a way which would have worked more effectively? Keep in mind, breaks and activities which allow for movement, participant involvement, etc., will help extend the attention of your audience.

Resources

Once again, remember the importance of planning ahead. Select the resources you plan to use early. In selection of resources, keep in mind that resources include more than books or materials; people are also resources.

Allotted Time

Refer to the estimated time for each section. Compare the information in the section to the participants' current knowledge base. This information will be useful to you in making adjustments to the time you will need to cover each section of material.

Integrating Ideas

Once you have decided on the plan and format for your workshop, it is time to integrate these ideas and strategies into a single plan that will summarize what you want to do. If after looking at the training plan for your workshop you feel changes are needed, make those changes. Remember, this is your workshop; it should fit your training style and meet the needs of the participants.

Workshop Evaluation

It is important that you conduct an evaluation of the workshop. This may be done through the use of the evaluation instruments provided in each section, or it may be done informally throughout the workshop. One way of keeping participants involved in the sessions is to allow for periodic feedback. Be aware of nonverbal behavior and the types of questions asked. This will provide you important information about how well you are motivating the audience or explaining the material. The overall evaluation of the workshop may be evaluated by having the participants complete the workshop evaluation form provided.

Conclusion

This material has been provided to help you plan for your workshop. Remember the objectives and goals you have set. Plan well and good luck in presenting "Coordination Through Communication."

SECTION I
INTRODUCTION

HOW TO USE

INTRODUCTION

Begin by reading the material carefully. Look at the main objective and specific objectives identified for the section. This will assist you in planning your presentation.

Select transparency masters for use, and prepare transparencies. In addition to the transparency masters provided in this section, you may wish to make transparencies of the Model Overview on pages 5 and 6 to use in introducing the model.

The fall in-service may be used to make school personnel aware of plans for the implementation of the model. This would be an important time to request full cooperation from administrators, counselors, and teachers.

Section I - Introduction may be used as a means of introducing the model in your local district. This may be done as a part of the fall in-service or in a smaller group of selected school personnel.

(Italicized print indicates that the information is provided for the trainer.)

SECTION I INTRODUCTION

MAIN

OBJECTIVE: To establish the importance of the model to both vocational and academic teachers.

SPECIFIC

OBJECTIVES: Make participants aware of:

1. The basis for development of the model;
 2. The primary objective of the model;
 3. Current status of CVAE;
 4. Requirements for student enrollment;
 5. Types of CVAE programs; and
 6. Importance of cooperation of teachers.
-

[NOTE TO TRAINER: As a means of providing information to teachers, it is recommended that administrators meet jointly with CVAE and academic teachers to explain the purpose of the model. This could be done easily at the beginning of the school year as a part of the joint fall in-service. Teachers should be advised that those who have students in their classrooms, who are concurrently enrolled in a CVAE program, will be expected to provide assistance. Teachers not currently teaching students who are enrolled in CVAE programs would be encouraged to take advantage of the same strategies.]

I. DEVELOPMENT OF MODEL

- A. The training model was developed in 1989-90 by the Educational Development and Training Center at East Texas State University, located in Commerce, Texas.

- B. Developed through a grant from the Texas Education Agency in Austin, Texas.
- C. The grant was for the development of a model program for the coordination of vocational and general education for students enrolled in coordinated vocational academic education (CVAE), grades 9-12.
- D. The project addressed the following concerns and recommendations dealing with the coordination of academic and vocational education addressed in the "Evaluation of Coordinated Vocational-Academic Education Grades 9-12." (*USE TMs-1 and 2*)

II. PRIMARY OBJECTIVE OF THE MODEL

- A. The primary objective of the project was to develop strategies for coordination of instruction between vocational education and general education teachers.
- B. The strategies were to include increased "academic" content in vocational education and delivery of "academic" instruction in a more relevant manner to students.

III. STRATEGIES

- A. Criteria for inclusion of an activity or strategy in the model.
 - 1. It has to be simple.
 - 2. It has to be easy.

RECOMMENDATIONS

Recommendation #3:

The coordination of academic and vocational education should be encouraged.

Recommendation #3a:

Vocational Curriculum materials for CVAE classes should include more academics. The academics in the materials should be integrated and relevant to the vocational material.

Recommendation #3b:

CVAE classes should be required to devote a minimum of 20% of their class time (or two hours per week, whichever is more) to applied basic skills. It is very important for these students to bring academics into their vocational classes, so that connections between the two can be made and learning facilitated.

Recommendation #3c:

CVAE vocational teachers should be required to develop coordinated lesson plans that include the academic activities for the "20% academic hours." CVAE vocational teachers should be responsible for monitoring the student's progress in other classes. CVAE vocational teachers should be required to schedule regular meetings with academic teachers. CVAE teachers should be required to have one extra planning period to accomplish these requirements.

Recommendation #3d:

CVAE vocational teachers should have more specialized in-service training opportunities. All CVAE teachers who do not have a baccalaureate degree should continue to work towards one as quickly as possible. CVAE vocational teachers should be encouraged to become certified in an academic area as well as their vocational area.

3. It must benefit both teachers and students.
- B. Strategies should not require large amounts of time and large group involvement.
- C. What type of strategies were needed?
1. The underlying theme of all meetings seemed to be one thing, "communication."
 2. Through communication a great deal could be accomplished.
 3. This is how the name "Coordination Through Communication" came about.
- D. Model provides for the following forms:
1. Check-lists that would provide for the exchange of student information without lengthy written communication were developed.
 2. Samples of forms were developed that would allow for maintaining records of student enrollment and appropriate teacher contacts.
- E. Questions asked by the model:
1. What do teachers need?
 2. What will teachers use?

F. Simplification of Model

1. Model began with a high degree of structure.
2. The need for flexibility replaced structure.
3. Teachers are busy.
4. Teachers plan ahead.
5. Must fit into your schedule.

QUESTION: How many of you are familiar with Coordinated Vocational Academic programs?

DISCUSSION: Provide opportunity for discussion.

IV. CURRENT STATUS OF CVAE PROGRAMS

A. Programs were designed to provide occupational and academic education in a coordinated way. (USE TMs-3 and 4) In order to be admitted to the program students must be educationally disadvantaged.

1. One grade level behind in three or more academic areas.
2. Score below the 25th percentile on a standardized achievement test.
3. In 1968, over two hundred CVAE programs were started in Texas.
4. Separate CVAE academic instructors worked with CVAE vocational teachers.
5. Both academic and vocational teachers' salaries were supported with extra state funding.
6. There were frequent visits by TEA staff, in-service conferences held jointly for CVAE academic and vocational teachers, and curriculum materials designed especially for CVAE.

CVAE

DESIGNED TO PROVIDE

OCCUPATIONAL AND ACADEMIC EDUCATION

IN A COORDINATED WAY

CRITERIA FOR PLACEMENT IN CVAE

STUDENTS MUST BE EDUCATIONALLY DISADVANTAGED

- **ONE GRADE LEVEL BEHIND IN THREE OR MORE ACADEMIC AREAS**
- **SCORE BELOW THE 25 PERCENTILE ON A STANDARDIZED ACHIEVEMENT TEST**

Have CVAE teachers complete ACTIVITY 1 - WHAT DO YOU TEACH IN CVAE?

- B. There are CVAE programs in the following areas: *(USE TM-5)*
1. AGRICULTURAL SCIENCE AND TECHNOLOGY
 2. OFFICE EDUCATION
 3. TRADE AND INDUSTRIAL EDUCATION
 4. VOCATIONAL HOME ECONOMICS

QUESTION: Could those of you who teach in CVAE programs tell a little about your program?

DISCUSSION: Provide opportunity for discussion.

V. CURRENT STATUS

- A. Changes in programs have affected the coordination of CVAE.
- B. CVAE instructors have become responsible for the coordination of the programs.
- C. CVAE instructors are often not prepared to teach academic principles.
- D. The purpose of this model is to provide information in the form of strategies that will assist in the coordination of instruction between vocational education and general education teachers.

1. Increase the amount of academic content in vocational education.
2. Allow for the delivery of "academic" instruction in a more relevant manner to students.
3. This is to be a two-way street between vocational and academic teachers.
4. You, as effective instructors, whether you are academic or vocational, will be the true change agents in making this model work.

QUESTION:

1. *How many of you feel that you understand the purpose of "Coordination Through Communication"?*
2. *How many of you feel that you have a better understanding of CVAE programs?*

DISCUSSION: *Provide opportunity for discussion.*

The remaining sections will allow you to experience Coordination Through Communication.

CVAE PROGRAM AREAS

- **AGRICULTURAL SCIENCE AND TECHNOLOGY**
- **OFFICE EDUCATION**
- **TRADE AND INDUSTRIAL EDUCATION**
- **VOCATIONAL HOME ECONOMICS**

ACTIVITY

55

SECTION I
INTRODUCTION
ACTIVITY 1 - WHAT DO YOU TEACH IN CVAE PROGRAMS?

MAIN

OBJECTIVE: To establish the importance of the model to both vocational and academic teachers.

SPECIFIC

OBJECTIVES: Provide participants the opportunity to:

1. Learn about CVAE programs in their local district;
2. Learn about CVAE course content; and
3. Identify techniques used to teach CVAE courses.

Directions: Each CVAE teacher will take ten to fifteen minutes to complete the activity. Upon completion, the activity will be used for discussion.

1. What is the course title?
2. What is the course content?
3. Describe a typical day in your classroom.
4. Describe any problems or frustrations you may have about the course you teach.

SECTION II

ESTABLISHING COMMUNICATION
CHANNELS

HOW TO USE

ESTABLISHING COMMUNICATION

CHANNELS

Begin by reading the material carefully. Look at the main objective and specific objectives identified for the section. This will assist you in planning your presentation.

Select transparency masters for use and prepare transparencies.

Select handouts and activities, and prepare the necessary number of copies. Review the activities selected for use. Looking at your expected workshop population, determine the time necessary for completion of each activity.

For this section, participants will need to bring grade books for courses and writing tablets. You may wish to use the memo provided in Appendix C.

(Italicized print indicates that the information is provided for the trainer.)

SECTION II

ESTABLISHING COMMUNICATION CHANNELS

MAIN

OBJECTIVE: Make participants aware of the importance of increased communication in regard to the coordination of vocational and academic education.

SPECIFIC

OBJECTIVES: Make participants aware of:

1. Their personal role in establishing communication channels;
 2. The advantages of increased communication to teachers;
 3. The advantages of increased communication to students;
 4. Procedures for working in small groups with other teachers;
 5. Procedures for comparing student enrollment to determine common students; and
 6. Procedures for comparing student progress.
-

[NOTE TO TRAINER: For this section, participants will need to bring grade books for courses and writing tablets. You may wish to use the memo provided in Appendix C.]

I. MODEL ACTIVITIES

- A. Understand that communication is needed.

- B. Develop activities and strategies that will assist teachers who teach students who are enrolled in CVAE programs.

II. ESTABLISHING COMMUNICATION CHANNELS

- A. The first activity of the project is the establishment of the framework for communication between CVAE and academic teachers.

QUESTION: How many of you are already involved in some type of coordination with CVAE or academic teachers?

DISCUSSION: Provide opportunity for discussion.

- B. (USE TM-6) Following the fall in-service, the model coordinator teachers would:

1. Obtain student class schedules
 - a. From administration
 - b. From students

[This will vary with local districts].

[Form has been provided in Appendix C which will assist in obtaining this information.]

2. Provide list of CVAE teachers and students to academic teachers

[Forms have been provided in Appendix C which will assist the teachers in recording and sharing this information.]

3. Provide CVAE teachers with a list of academic teachers who teach CVAE students
4. Meet with specific CVAE and academic teachers to discuss:
 - a. Grades
 - b. Attendance
 - c. Behavior

FRAMEWORK FOR COMMUNICATION

FOLLOWING FALL IN-SERVICE, MODEL COORDINATOR WILL:

- **OBTAIN STUDENT CLASS SCHEDULES**
- **PROVIDE LIST OF CVAE TEACHERS AND STUDENTS TO ACADEMIC TEACHERS**
- **PROVIDE LIST OF ACADEMIC TEACHERS TO CVAE TEACHERS**
- **MEET WITH SPECIFIC CVAE AND ADEMIC TEACHERS TO DISCUSS:**
 - **GRADES**
 - **ATTENDANCE**
 - **BEHAVIOR**
 - **OTHER PROBLEMS**

TM-6

- d. Other problems

- C. Do you understand why is it important that communication channels be established between academic and vocational teachers?

Allow time for participants to respond.

QUESTION: *What steps may be taken in establishing communication channels between CVAE and academic teachers?*

DISCUSSION: *Provide opportunity for discussion.*

- 1. Some of the things which might be discussed are:
 - a. Grades
 - b. Attendance
 - c. Behavior
 - d. Other problems which might affect student progress.
- 2. As a review, let us look at the steps CVAE and academic teachers could take in establishing a framework for communication. (USE TM-6)
 - a. **MODEL COORDINATOR**
 - 1) Obtain student class schedules;
 - 2) Contact academic teachers, providing a listing of CVAE teachers and students;
 - 3) Contact CVAE teachers, providing a listing of academic teachers who teach CVAE students; and
 - 4) Arrange to meet with specific academic teachers as needed.

b. **ACADEMIC TEACHERS**

- 1) Take note of the students concurrently enrolled in your classroom and a CVAE program;
- 2) Contact CVAE teachers if the need arises; and
- 3) Respond to all requests for information or meetings quickly.

III. WHY INCREASE COMMUNICATION? (USE TM-7)

A. BENEFITS TO TEACHERS

1. Get acquainted with other teachers
2. Additional resources from which to draw
3. Greater problem-solving abilities
4. Support of administration

***QUESTION:** How many of you are familiar with the clubs that have been established for CVAE students?*

***DISCUSSION:** Provide opportunity for discussion.*

5. Assist with students involved in club activities
 - a. Meet with academic teachers in order to ensure that students maintain the necessary grades required for participation in club activities.
 - b. Clubs give students the opportunity for success.
 - c. Clubs give students the sense of belonging to a group.

B. BENEFITS TO STUDENTS

1. Establishment of common goal for students
2. Knowledge of student achievement and abilities
3. Identification of problem areas for students

RATIONALE FOR INCREASED COMMUNICATION

- **ADVANTAGES TO TEACHERS**
 - **GET ACQUAINTED WITH OTHER TEACHERS**
 - **ADDITIONAL RESOURCES FROM WHICH TO DRAW**
 - **GREATER PROBLEM-SOLVING ABILITIES**
 - **SUPPORT OF ADMINISTRATION**
- **ADVANTAGES TO STUDENTS**
 - **ESTABLISHMENT OF COMMON GOAL FOR STUDENTS**
 - **KNOWLEDGE OF STUDENT ACHIEVEMENT AND ABILITIES**
 - **IDENTIFICATION OF PROBLEM AREAS FOR STUDENTS**
 - **UNIFIED ASSISTANCE EFFORTS FOR STUDENTS**
 - **MORE COMPREHENSIVE-RELEVANT EDUCATION**

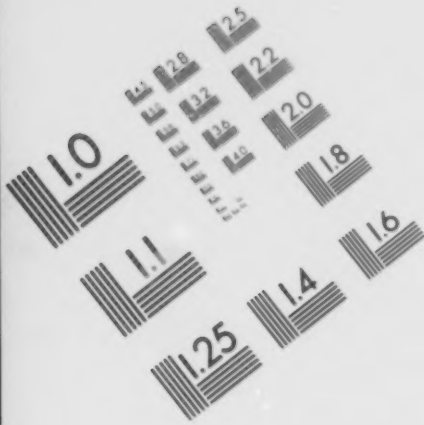


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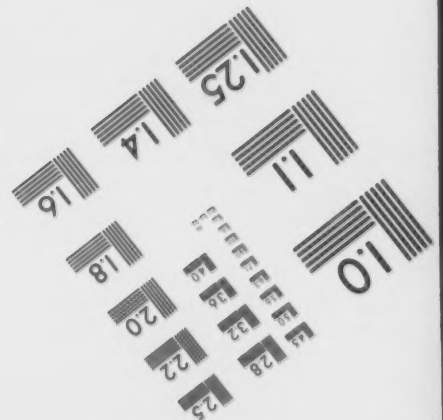
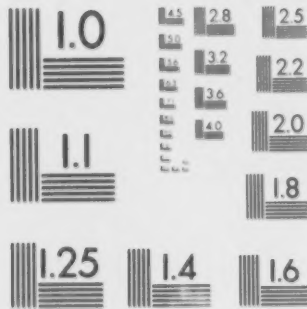
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4. Unified assistance efforts for students
5. More comprehensive-relevant education

C. BARRIERS TO COORDINATION

In spite of all the benefits that can be derived from coordinated planning among school personnel, there are potential barriers which should be acknowledged by members of a coordinated planning team. This awareness is an important initial step in achieving true cooperation.

1. Personal Barriers (*USE TM-8*)
 - a. Lack of commitment, complacency, or indifference by team members.
 - b. Lack of trust (suspicion).
 - c. Lack of respect; respect may be missing among team members.
 - d. Lack of skills in decision making, problem solving and conflict resolution.
 - e. Jealousy.
 - f. Personality conflicts.
 - g. Power struggles.
 - h. Competition.
2. Professional Barriers (*USE TM-9*)
 - a. Philosophical differences may exist among team members.
 - b. Inability of individuals to link their expertise to those of the other team members.
 - c. Perception on the part of one or more team members that another member is less-qualified.
 - d. A diversity in the amount or level of professional training of team members.
 - e. Lack of flexibility (e.g. inflexible schedules, limited time).

- f. Feelings of territoriality or "turf protection" (rivalry, professional insecurity).
 - g. Different terminology used by the various disciplines.
 - h. Poor communication among individuals from different professional backgrounds.
3. Group Dynamic Barriers (*USE TM-10*)
- a. Roles and responsibilities among team members of the team are not understood.
 - b. A single individual may dominate the team's operation.
 - c. Inability of team members to delegate and share responsibilities based on their various strengths.
 - d. Lack of authority on the part of team members.
- (Colby, 1986; Gilroy & Swan, 1984; Sarkees & Scott, 1985)

QUESTION: *What are the barriers to coordinated planning?*

DISCUSSION: *Provide opportunity for discussion.*

D. FACILITATORS TO COORDINATION

A number of facilitators to effective cooperative planning have been identified in the literature. (*USE TM-11*)

- 1. A constant desire and commitment among the team members to work together with the primary purpose of helping the student succeed.
- 2. A feeling of security, trust, and mutual respect among the members of the team.
- 3. A climate of "open communication" among the team wherein ideas, feelings, and values are respected and shared. The members explore and choose solutions to problems which would be most beneficial to the student.
- 4. The role and responsibilities of each member are defined and acknowledged.
- 5. Professional jargon is minimized.
- 6. Goals and time lines are determined.

BARRIERS TO COORDINATED PLANNING (A)

- **LACK OF COMMITMENT, COMPLACENCY, OR INDIFFERENCE BY TEAM MEMBERS**
- **LACK OF TRUST (SUSPICION)**
- **RESPECT MAY BE MISSING AMONG TEAM MEMBERS**
- **LACK OF SKILLS IN DECISION MAKING, PROBLEM SOLVING, AND CONFLICT RESOLUTION**
- **JEALOUSY**
- **PERSONALITY CONFLICTS**
- **POWER STRUGGLES**
- **COMPETITION**

BARRIERS TO COORDINATED PLANNING (B)

- PHILOSOPHICAL DIFFERENCES MAY EXIST AMONG TEAM MEMBERS
- INABILITY OF INDIVIDUALS TO LINK THEIR EXPERTISE TO THOSE OF OTHER TEAM MEMBERS
- PERCEPTION ON THE PART OF ONE OR MORE TEAM MEMBERS THAT ANOTHER MEMBER IS LESS-QUALIFIED
- A DIVERSITY IN THE AMOUNT OR LEVEL OF PROFESSIONAL TRAINING OF TEAM MEMBERS
- LACK OF FLEXIBILITY (E.G., INFLEXIBLE SCHEDULES, LIMITED TIME)
- FEELING OF TERRITORIALITY OF "TURF PROTECTION" (RIVALRY, PROFESSIONSL INSECURITY)
- POOR COMMUNICATION AMONG INDIVIDUALS FROM VARIOUS BACKGROUNDS

100

BARRIERS TO COORDINATED PLANNING (C)

- **ROLES AND RESPONSIBILITIES AMONG MEMBERS OF THE TEAM ARE NOT UNDERSTOOD**
- **A SINGLE INDIVIDUAL MAY DOMINATE THE TEAM'S OPERATION**
- **INABILITY OF TEAM MEMBERS TO DELEGATE AND SHARE RESPONSIBILITIES BASED ON THEIR VARIOUS STRENGTHS**
- **LACK OF AUTHORITY ON THE PART OF TEAM MEMBERS**

FACILITATORS TO THE COORDINATED PLANNING PROCESS

- A CONSTANT DESIRE AND COMMITMENT AMONG THE TEAM MEMBERS TO WORK TOGETHER WITH THE PRIMARY PURPOSE OF HELPING THE LEARNER WITH SPECIAL NEEDS SUCCEED
- A FEELING OF SECURITY, TRUST, AND MUTUAL RESPECT AMONG THE MEMBERS OF THE TEAM
- A CLIMATE OF "OPEN COMMUNICATION" AMONG THE TEAM WHEREIN IDEAS, FEELINGS, AND VALUES ARE RESPECTED AND SHARED. THE MEMBERS EXPLORE AND CHOOSE SOLUTIONS TO PROBLEMS WHICH WOULD BE MOST BENEFICIAL TO THE STUDENT
- THE ROLE AND RESPONSIBILITIES OF EACH MEMBER ARE DEFINED AND ACKNOWLEDGED
- PROFESSIONAL JARGON IS MINIMIZED
- GOALS AND TIME LINES ARE DETERMINED
- THE PLANNING TEAM HAS A MEMBER/S WHO HELP FACILITATE AND KEEP MINUTES OF THE MEETING

7. The planning team has a member/s who help facilitate and keep minutes of the meetings.
8. The team exercises effective conflict resolution strategies when needed.

(Gilroy & Swan, 1984; McNulty & Soper, 1983; Tindall, 1980)

QUESTION: What are some of the facilitators to effective cooperative planning?

DISCUSSION: Provide opportunity for discussion.

[NOTE TO TRAINER: Select activities for use. Note the recommended time allotted for each activity. The number and type of activities selected will depend on the type and number of participants involved. (USE TM-12) following Activity 2 - Communication Activities.]

COMMUNICATION ACTIVITIES

- SERVE AS GUEST SPEAKER FOR OTHER CLASSES
- EXCHANGE MANIPULATIVES
- FOR EXAMPLE: MEASUREMENT INSTRUMENTS
 - JOINT ASSIGNMENTS FOR INDIVIDUAL STUDENTS
- JOINT COMMITTEE WORK FOR DISTRICT
- JOINT PROFESSIONAL DEVELOPMENT AND TRAINING
- SERVE AS REPRESENTATIVE TO OTHER DEPARTMENTAL MEETINGS
- ACADEMIC SPONSORS FOR VOCT AND OTHER CLUBS
- JOINT FUND RAISERS -- CVAE/ACADEMIC
- PAIRED VOCATIONAL/ACADEMIC:
 - LUNCH DUTY
 - HALL DUTY
 - EXTRACURRICULAR ACTIVITIES
- COMBINE CLASSES FOR GUEST SPEAKERS

ACTIVITIES

SECTION II
ESTABLISHING COMMUNICATION CHANNELS
ACTIVITY 1 - IDENTIFYING STUDENTS

MAIN

OBJECTIVE: Make participants aware of the importance of increased communication in regard to the coordination of vocational and academic education.

SPECIFIC

OBJECTIVES: Provide participants the opportunity to:

1. Work in small groups with other teachers;
2. Compare student enrollment to determine common students; and
3. Compare student progress.

Directions: Divide into groups of four to six. Using your course grade books, compare enrollment records to determine which students are concurrently enrolled in one or more classrooms. Make a listing of students. As you make your comparisons you may wish to discuss the following in regard to specific students:

1. Grades
2. Attendance
3. Behavior
4. Learning style
5. Attitude
6. Concentration
7. Other

Take notes on information that may assist you in working with students in your classroom.

SECTION II
ESTABLISHING COMMUNICATION CHANNELS
ACTIVITY 2 - COMMUNICATION ACTIVITIES

MAIN

OBJECTIVE: Make participants aware of the importance of increased communication in regard to the coordination of vocational and academic education.

SPECIFIC

OBJECTIVES: Provide participants the opportunity to:

1. Work in small groups with other teachers; and
2. Identify the types of activities that would increase the amount of communication they would have with other teachers.

Directions: Divide into groups of four to six. Select one individual to act as recorder. Make a listing of the types of activities you feel would increase the amount of communication between vocational and academic teachers.

Once all groups have completed their listing, each group will share their ideas with other participants. If possible, provide copies of your list to other groups.

SECTION II
ESTABLISHING COMMUNICATION CHANNELS
ACTIVITY 3 - STUDENT ORGANIZATIONS

MAIN

OBJECTIVE: Make participants aware of the importance of increased communication in regard to the coordination of vocational and academic education.

SPECIFIC

OBJECTIVES: Provide participants the opportunity to:

1. Work in small groups with other teachers;
2. Discuss the type of student organizations for CVAE students;
3. Discuss the importance of student organizations for CVAE students;
and
4. Identify ways of assisting students who are involved in student organizations.

Directions: Divide into groups of four to six. Select one or more CVAE teacher to discuss the types of organizations provided for CVAE students. Teachers may wish to give examples demonstrating the importance of club participation for students. In discussing student involvement in organizations, be sure to address:

1. Club activities
2. Projects
3. Leadership
4. Pride in accomplishments
5. Importance of maintaining a passing grade

You may wish to plan ways of involving academic teachers in organizational activities. Look for ways to assist students who may be having problems. Identify steps that could be taken to ensure continued involvement for CVAE students.

SECTION III

VOCATIONAL/ACADEMIC ADVISORY

COMMITTEE (VAAC)

HOW TO USE

VOCATIONAL/ACADEMIC ADVISORY

COMMITTEE (VAAC)

Begin by reading the material carefully. Look at the main objective and specific objectives identified for the section. This will assist you in planning your presentation.

Select transparency masters for use and prepare transparencies.

Select handouts and activities and prepare the necessary number of copies. Review the activities selected for use. Looking at your expected workshop population, determine the time necessary for completion of each activity.

For this section, participants will need to bring copies of essential elements of the courses they are teaching, grade books for courses, curriculum materials, and writing tablets. You may wish to use the memo provided in Appendix C.

(Italicized print indicates that the information is provided for the trainer.)

SECTION III

VOCATIONAL/ACADEMIC ADVISORY COMMITTEE (VAAC)

MAIN

OBJECTIVE: Participants will be made aware of how a Vocational/Academic Advisory Committee works.

SPECIFIC

OBJECTIVES: Make participants aware of:

1. Who would be involved in the VAAC;
2. How the VAAC is used;
3. How often the VAAC will meet;
4. Advantages of VAAC to vocational teachers;
5. Advantages of VAAC to academic teachers;
6. Compare essential elements for specific courses;
7. Identify common academic principles being taught;
8. Exchange ideas for establishing relevancy; and
9. Make plans for future individual or group meetings.

[NOTE TO TRAINER: For this section, participants will need to bring copies of essential elements for the courses they are teaching, grade books for courses, curriculum materials, and writing tablets. You may wish to use the memo provided in Appendix C.]

I. VOCATIONAL/ACADEMIC ADVISORY COMMITTEE

- A. The second activity of the model, the development of a "vocational/academic advisory committee" (VACC) was developed in response to recommendations #3, #3a, #3b, and #3c (*review these recommendations, USE TMs-1 and 2*).
- B. It is simply a committee formed to give advice concerning academic subjects.

QUESTION: *How many of you feel that you have enough materials to cover in your classroom?*

DISCUSSION: *Provide opportunity for discussion.*

C. Each CVAE teacher is requested to establish a "vocational/academic advisory committee." (USE TM-13)

1. Select academic teachers from:
 - a. Mathematics
 - b. English
 - c. Science
 - d. Social Studies

2. VAAC would:
 - a. Review essential elements for CVAE and academic areas.
 - b. Discuss current academics in CVAE
 - c. Identify additional areas for academics
 - d. Discuss teaching methods
 - e. Discuss activities

3. Committee will meet as needed

4. Committee is not adding to, simply identifying and labeling what is already being done.

VOCATIONAL/ACADEMIC ADVISORY COMMITTEES

RATIONAL

- **ADVANTAGES TO CVAE TEACHERS**
 - **GET ACQUAINTED WITH OTHER TEACHERS**
 - **BETTER UNDERSTANDING OF ACADEMIC PROGRAMS**
 - **LARGER POOL OF IDEAS FROM WHICH TO DRAW**
 - **RELATE TO PRIOR KNOWLEDGE OF STUDENTS**
- **ADVANTAGES TO ACADEMIC TEACHERS**
 - **GET ACQUAINTED WITH OTHER TEACHERS**
 - **BETTER UNDERSTANDING OF CVAE PROGRAMS**
 - **LARGER POOL OF IDEAS FROM WHICH TO DRAW**
 - **MAKE ACADEMIC CONCEPTS RELEVANT TO STUDENTS**

- D. Let's do a quick review of the function of the Vocational/Academic Advisory Committee.

QUESTION: *What are some of the activities which could take place in the Vocational/Academic Advisory Committee?*

DISCUSSION: *Provide opportunity for discussion.*

- E. In working in the VAAC, the academic teachers will work with the CVAE teacher to: (USE TM-13)
1. Review the essential elements for CVAE courses;
 2. Identify where academics are currently being taught in CVAE curriculum;
 3. Identify areas where academics might be included;
 4. Discuss teaching methods;
 5. Identify new activities for teaching academics; and
 6. Provide assistance on an ongoing basis.

II. RATIONALE FOR HAVING A VOCATIONAL/ACADEMIC ADVISORY COMMITTEE (USE TM-14)

A. Advantages to CVAE teachers

1. Get acquainted with other teachers
2. Better understanding of academic programs
3. Larger pool of ideas to draw from
4. Relate to prior knowledge of students

B. Advantages to Academic teachers

1. Get acquainted with other teachers
2. Better understanding of CVAE programs
3. Larger pool of ideas to draw from
4. Make academic concepts more relevant to students

III. GENERALIZABLE SKILLS

- A. Discuss the definition of generalizable skills.

QUESTION: Can you define generalizable skill?

DISCUSSION: Provide opportunity for discussion.

- B. Discuss why vocational classrooms are good places to teach generalizable skills.

QUESTION: Why would vocational education classrooms and laboratories provide an excellent environment for students to learn or reinforce generalizable skills?

DISCUSSION: Provide opportunity for discussion.

- C. Name the two academic areas which Greenan identifies as containing generalizable skills.

[NOTE TO TRAINER: A handout covering generalizable skills is located in Appendix C.]

1. Mathematics (USE TM-15)

QUESTION: What math skills do you think would be termed generalizable?

DISCUSSION: Provide opportunity for discussion.

VOCATIONAL/ACADEMIC ACVISORY COMMITTEE ACTIVITIES

- COMPARE ESSENTIAL ELEMENTS FOR COURSES
- COMPARE ENROLLMENT FOR CLASSES
- COMPARE INDIVIDUAL STUDENT PROGRESS
- IDENTIFY COMMON PROBLEM AREAS
- ASSIST IN PROBLEM SOLVING
- JOINT ASSIGNMENTS FOR STUDENTS ON RELATED SUBJECTS
- TEAM TEACHING
- JOINT LESSON PLANNING

BASIC MATHEMATICS SKILLS

THE FOLLOWING ARE BASIC MATHEMATICS SKILLS WHICH CAN BE GENERALIZED TO MANY OCCUPATIONAL AREAS:

- WHOLE NUMBERS
- FRACTIONS
- DECIMALS
- PERCENT
- MIXED OPERATIONS
- MEASUREMENT AND CALCULATION
- ESTIMATION

2. Communication Skills (*USE TMs 16-19*)

QUESTION: *What type of communication skills do you think would be termed generalizable?*

DISCUSSION: *Provide opportunity for discussion.*

D. Discuss the summary on generalizable skills.

[NOTE TO TRAINER: A handout covering generalizable skills is located in Appendix D.]

[Select activities for use. Note the recommended time allotted for each activity. The number and type of activities selected will depend on the type and number of participants involved. (USE TM-20) following Activity 3 - Planning A VAAC Meeting.]

IV. CONCLUSION AND WRAP-UP

[PASS OUT HANDOUTS.]

A. You have now had the opportunity to experience firsthand a part of what "Coordination Through Communication" is all about.

B. Each of you has been given a number of handouts that will provide you with additional information and recommendations.

- C. You are encouraged to follow through in taking an active part in the coordination of vocational and academic education. When coordination takes place, the parts become a whole.

V. EVALUATION

[PASS OUT EVALUATION INSTRUMENT Appendix E.]

- A. Feedback is important in all that we do.
- B. You are asked to take a few minutes to complete the evaluation instrument provided. Please turn it in as you leave.
- C. Thank you.

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COMMUNICATION SKILLS (A)

WORDS AND MEANINGS

143

COMMUNICATION SKILLS (B)

READING

145

130

131

COMMUNICATION SKILLS (C)

WRITING

147

132

133

COMMUNICATION SKILLS (D)

ORAL COMMUNICATION SKILLS:

SPEAKING AND LISTENING

149

134

135

VOCATIONAL/ACADEMIC ADVISORY COMMITTEE

- **CVAE TEACHER IDENTIFY ACADEMIC TEACHERS**
 - **MATHEMATICS**
 - **ENGLISH**
 - **SCIENCE**
 - **SOCIAL STUDIES**
- **ESTABLISH VOCATIONAL/ACADEMIC ADVISORY COMMITTEE**
 - **REVIEW ESSENTIAL ELEMENTS FOR CVAE**
 - **DISCUSS CURRENT ACADEMICS IN CVAE**
 - **IDENTIFY ADDITIONAL AREAS FOR ACADEMICS**
 - **DISCUSS TEACHING METHODS**
 - **DISCUSS ACTIVITIES**
- **COMMITTEE WILL MEET AS NEEDED**

ACTIVITIES

SECTION III
VOCATIONAL/ACADEMIC ADVISORY COMMITTEE (VAAC)
ACTIVITY 1 - COMMON ACADEMIC PRINCIPLES

MAIN

OBJECTIVE: Participants will be made aware of how a Vocational/Academic Advisory Committee works.

SPECIFIC

OBJECTIVES: Provide participants the opportunity to:

1. Work in small groups with other teachers;
2. Identify academic principles in the courses they teach;
3. Discuss how those academic principles are taught in specific courses;
and
4. Exchange ideas for establishing the relevancy of academic principles for students.

Directions: Divide into groups of four to six. Working individually, answer the following questions regarding activities that occur in your classroom. When everyone in the group has finished answering the questions, compare answers. You may wish to discuss how each activity is used in specific courses.

1. What do you measure?

2. What do you read?

3. What do you write?
4. When do you use math?
5. What chemicals do you use?
6. What do you teach about history?
7. Other

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SECTION III
VOCATIONAL/ACADEMIC ADVISORY COMMITTEE
ACTIVITY 2 - COMPARING ESSENTIAL ELEMENTS

MAIN

OBJECTIVE: Participants will be made aware of how a Vocational/Academic Advisory Committee works.

SPECIFIC

OBJECTIVES: Provide participants the opportunity to:

1. Work in small groups with other teachers;
2. Compare essential elements for specific courses;
3. Identify common academic principles being taught; and
4. Exchange ideas for establishing relevancy.

Directions: Divide into groups of four to six. Using the essential elements for each course taught, compare essential elements to determine common academic principles being taught. Make a listing of common academic principles. As you work in the group, exchange ideas for establishing relevancy of academic principles for students.

SECTION III
VOCATIONAL/ACADEMIC ADVISORY COMMITTEE
ACTIVITY 3 - PLANNING A VAAC MEETING

MAIN

OBJECTIVE: Participants will be made aware of how a Vocational/Academic Advisory Committee works.

SPECIFIC

OBJECTIVES: Provide participants the opportunity to:

1. Work in small groups with other teachers;
2. Identify the activities that could occur in a VAAC meeting; and
3. Plan the agenda for a VAAC meeting.

Directions: Divide into groups of four to six. Select a recorder for your group. Using the information you have received from this model, work with others in your group to identify the type of activities that may occur in a VAAC meeting. Once you have completed your list, work together to plan the agenda for a VAAC meeting.

You may wish to share this information with other workshop participants.

APPENDIX B

DESCRIPTION OF PARTICIPATING DISTRICTS

Edgewood ISD

5358 West Commerce

San Antonio, Texas 78237-1399

(512) 433-9412

Contact Person: Ernest Nicholson, Vocational Director

Edgewood ISD is located in Bexar County and has an average daily attendance (ADA) of 1305. The appraised value of Edgewood ISD is \$424,365. District records indicate a 75% disadvantaged student population. Edgewood ISD offers five (5) CVAE programs for those students enrolled in grades 9-12.

Edgewood ISD differs from the other districts taking part in the study in that it has three high schools in the district. Edgewood employs one vocational administrator and two vocational consultants to work with the vocational programs in the district. Teachers from each of the high schools took part in the project, showing a great deal of cooperation. Many of the teachers expressed the desire to become more involved in the coordination process.

The in-service for Coordination Through Communication was conducted at Edgewood ISD, November 21, 1989. The three high schools in Edgewood ISD were involved in the training for the model. One vocational consultant, one counselor, and nine teachers took part in the in-service.

Following the in-service, the survey instruments were mailed to the local district. These instruments were passed along to the in-service participants. The survey was used to determine to what extent strategies and activities provided by the model were being continued in the district. The survey instruments returned indicated that there had been an increase in the amount of communication between CVAE and academic teachers. Items discussed included student problems, progress, and activities. The frequency of communication varied from once per week to every four weeks or as needed. Less than half of the teachers surveyed indicated that they are not currently using activities shared by other teachers. However, over half indicated that they have shared activities that work in their classroom with other teachers. While none of the teachers indicated that they are taking part in a Vocational/Academic Advisory Committee, the majority stated that they had found ways of making academic principles more relevant to their students through working with

other teachers. More than half indicated that there had been a change in their students' behavior. When asked about administrative support, most indicated that the local administration was supportive of their involvement in the project.

Everman ISD
608 Townley
Everman, Texas 76140
(817) 293-0631
Contact Person: Travis Winn, Vocational Administrator

Everman ISD is located in Tarrant County and has an average daily attendance (ADA) of 3,074. District records indicate a 12% disadvantaged student population. Everman ISD offers three (3) CVAE programs for those students enrolled in grades 9-12.

Of particular interest to the project coordinator was a program currently in place at Everman ISD. On visits to the local district, signs stating "Need Help? See the I. T." were seen on the classroom doors of various teachers. The "I. T." or "Intervention Team" is a local program established to assist students. The I. T. is made up of teachers who volunteer to be a part of the team. Team members meet once each week to discuss problems of specific students and what type of intervention, if any, is needed. Students come to the attention of the I. T. through teacher, peer, and self-referral. Parents are often requested to become involved in the intervention process. Intervention is not limited to problems the student may be experiencing in the classroom. Any behavior changes in a student that has been noted by a significant number of individuals may trigger intervention by the team. The organization of the team and the positive impact it is having on students are very impressive. The administration at Everman ISD is to be commended in their support and involvement in this special effort.

The in-service for Coordination Through Communication was conducted at Everman ISD, December 12, 1989. Eight teachers took part in the in-service.

Following the in-service, the survey instruments were mailed to the local district. These instruments were passed along to the in-service participants. The survey was used to determine to what extent strategies and activities provided by the model were being continued in the district. The survey instruments returned indicated that there had been an

increase in the amount of communication between CVAE and academic teachers. Items discussed included student problems, progress, and activities. The frequency of communication varied from once per week to very seldom. Teachers surveyed indicate that they are not currently using activities shared by other teachers. However, half indicated that they have shared activities that work in their classroom with other teachers. While none of the teachers indicated that they are taking part in a Vocational/Academic Advisory Committee, one-half stated that they had found ways of making academic principles more relevant to their students through working with other teachers. Teachers indicated that there had been no change in their students' behavior. When asked about administrative support, one-half indicated that the local administration was supportive of their involvement in the project.

Gilmer ISD

P.O. Drawer 40

Gilmer, Texas 75644

(214) 843-2526

Contact Person: Ronnie Stanley, Assistant Superintendent

Gilmer ISD is located in Upshur County and has an average daily attendance (ADA) of 2,131. District records indicate a 33.2% disadvantaged student population.

Located in a rural setting, Gilmer ISD provides programs and facilities comparable to any district visited. Students observed appeared to be highly motivated and involved in classroom projects. Gilmer ISD is to be commended on the quality of their vocational programs.

The in-service for Coordination Through Communication was conducted at Gilmer ISD, December 5, 1989. One curriculum specialist, one counselor, and eight teachers took part in the in-service.

Following the in-service, the survey instruments were mailed to the local district. These instruments were passed along to the in-service participants. The survey was used to determine to what extent strategies and activities provided by the model were being continued in the district. The survey instruments returned indicated that there had been a small degree of increase in the amount of communication between CVAE and academic

teachers. Communication was in the form of informal conferences used to discuss areas where students were in need of assistance. The frequency of communication varied from two or three times per week to never. Over half of the teachers surveyed indicated that they were currently using activities shared by other teachers. However, less than half indicated that they had shared activities that work in their classroom with other teachers. Only one teacher indicated that he/she was taking part in a Vocational/Academic Advisory Committee, the majority stated that they had found ways of making academic principles more relevant to their students through working with other teachers. Less than half indicated that there had been a change in their students' behavior. When asked about administrative support, less than half indicated that the local administration was supportive of their involvement in the project.

Mount Pleasant ISD

P.O. Box 1117

Mount Pleasant, Texas 75455

(214) 752-7991

Contact Person: Leonard Harcrow, Vocational Administrator

Mount Pleasant ISD is located in Titus County in the eastern section of the state. Mount Pleasant has an average daily attendance (ADA) of 3,941, and district records indicate a 25% disadvantaged student population. Mount Pleasant ISD offers four (4) CVAE programs for those students enrolled in grades 9-12.

The tour of the vocational facilities at Mount Pleasant High School was a pleasant experience. Every effort had been made to supply classrooms with up-to-date equipment. The past few years had brought about reductions in the number of vocational programs in operation in the district. Teachers expressed concern for students and the need to increase program offerings in order to meet the needs of students. Academic and vocational teachers expressed the desire to work together for the good of students.

The in-service for Coordination Through Communication was conducted at Mount Pleasant ISD, November 14, 1989. One vocational director, one counselor, and six teachers took part in the in-service.

Following the in-service, the survey instruments were mailed to the local district. These instruments were passed along to the in-service participants. The survey was used to determine to what extent strategies and activities provided by the model were being continued in the district. The survey instruments returned indicated that there had been an increase in the amount of communication between CVAE and academic teachers. Items discussed included student problems, progress, and activities. The frequency of communication varied from as needed to never. More than half of the teachers surveyed indicated that they were currently using activities shared by other teachers. However, less than half indicated that they had shared activities that work in their classroom with other teachers. Two teachers indicated that they were taking part in a Vocational/Academic Advisory Committee; however, all stated that they had found ways of making academic principles more relevant to their students through working with other teachers. Less than half indicated that there had been a change in their students' behavior. When asked about administrative support, over half indicated that the local administration was supportive of their involvement in the project.

Paris ISD
Drawer 1159
Paris, Texas 75460
(214) 785-6374
Contact Person: Ken Emery, Vocational Administrator

Paris ISD is located in Lamar County in the northern section of the state. Paris ISD has an average daily attendance (ADA) of 4,055, and district records indicate that 40% of the student population is disadvantaged. Paris ISD offers five (5) CVAE programs for those students enrolled in grades 9-12.

Each pilot site selected to be a part of the model has distinct individual characteristics. Paris ISD proved to be outstanding in many areas. The project coordinator was very pleased to find a positive attitude among members of the administration and faculty. Communication lines were already in place. It was found that many of the teachers met together on a daily basis to discuss their students and classroom activities. Interaction between academic teachers and CVAE vocational teachers was ongoing. Teachers and students were comfortable in having the vocational administrator in the classroom. The vocational

administrator showed an up-to-date knowledge about all the vocational programs at Paris ISD. Careful observation left little to be desired in the form of district improvement.

The in-service for *Coordination Through Communication* was conducted at Paris ISD, December 7, 1989. One vocational administrator, two counselors, and thirteen teachers took part in the in-service.

Following the in-service, the survey instruments were mailed to the local district. These instruments were passed along to the in-service participants. The survey was used to determine to what extent strategies and activities provided by the model were being continued in the district. The survey instruments returned indicated that there had been a slight increase in the amount of communication between CVAE and academic teachers. However, it was pointed out that communication had always been good in the district. Items discussed included student problems, progress, and activities. The frequency of communication varied from daily to as needed. Less than half of the teachers surveyed indicated that they were currently using activities shared by other teachers. However, more than half indicated that they had shared activities that work in their classroom with other teachers. No teachers indicated that they are taking part in a Vocational/Academic Advisory Committee; however, over half stated that they had found ways of making academic principles more relevant to their students through working with other teachers. Less than half indicated that there had been a change in their students' behavior. They did add however, that student behavior had always been very good. When asked about administrative support, all teachers indicated that the local administration was supportive of their involvement in the project.

Wilmer-Hutchins ISD

3820 East Illinois Avenue

Dallas, Texas 75216

(214) 225-7347

Contact Person: Azil Tipps, Vocational Administrator

Wilmer-Hutchins ISD is located in Dallas County and has an average daily attendance (ADA) of 3,847. District records indicate a 70 percent disadvantaged student population. Wilmer-Hutchins ISD offers three (3) CVAE programs for those students enrolled in grades 9-12.

The tour of vocational classrooms at Wilmer-Hutchins ISD was very impressive. Each classroom made use of the most up-to-date equipment and materials. Students were provided the opportunity to utilize modern technology in the classroom. Teachers interviewed had a very positive attitude about teaching. Further investigation showed that the success of the vocational program was due in part to the work of the administration. The vocational administrator works closely with all vocational programs. Every effort was made to secure funding in order to provide the equipment and materials needed by teachers. The overall feeling in Wilmer-Hutchins appeared to be that of satisfaction.

The in-service for Coordination Through Communication was conducted at Wilmer-Hutchins ISD, January 25, 1990. One counselor, and four teachers took part in the in-service.

Following the in-service, the survey instruments were mailed to the local district. These instruments were passed along to the in-service participants. The survey was used to determine to what extent strategies and activities provided by the model were being continued in the district. The survey instruments returned indicated that there had been an increase in the amount of communication between CVAE and academic teachers. Items discussed included student problems, progress, and activities. Teachers indicated that communication occurs on a weekly basis. Over half of the teachers surveyed indicated that they were currently using activities shared by other teachers. However, all indicated that they had shared activities that work in their classroom with other teachers. While none of the teachers indicated that they were taking part in a Vocational/Academic Advisory Committee, all stated that they had found ways of making academic principles more relevant to their students through working with other teachers. All indicated that there had been a change in their students' behavior. When asked about administrative support, all indicated that the local administration was supportive of their involvement in the project.

Two months after the first survey, a second survey instrument was provided to in-service participants. This instrument requested information regarding specific activities recommended by the model. Participants were asked to rate each activity on a scale of one (1) to five (5) with five being the highest possible rating. In addition participants were asked to provide comments and recommendations about the model. The majority of teachers surveyed, rated all the activities recommended by the model as being good with the exception of the recommendation that meetings to coordinate CVAE programs and

academic classes should occur every three weeks at a minimum. However, in their comments, teachers indicated that they felt meetings should occur on a regular basis.

It was found that only three of the teachers who responded had two hours for planning each day. The majority of the teachers were meeting with other teachers to coordinate activities; however, only three indicated that this coordination was taking place at least every three weeks. All but two teachers felt that a "Vocational/Academic Advisory Committee" would be of benefit to CVAE teachers. Just under one-half of the teachers indicated that someone at their school had worked with them following the teacher in-service to assist in carrying out the recommended activities; i.e., administrative support and district commitment.

All teachers felt that coordination was important. The most common comment made by teachers was the basic lack of time available for coordination. During personal interviews, teachers indicated that they felt that if the administration mandated the coordination, then they would be provided with the time for the coordination to occur.

APPENDIX C

Dear Colleague:

You are asked to attend the teacher in-service scheduled for _____, I am excited about the project which has brought about the development of "Coordination Through Communication." You will be learning more about that during the in-service, along with other ideas which will assist you in your classroom.

Following is a list of items we would like for you to bring with you to the in-service.

Essential elements for the courses you are teaching.

Grade books for your classes.

Curriculum materials.

Writing tablet.

We feel this day will be interesting and will provide you with new materials, ideas, etc., that will benefit you in teaching.

Thanks again,

COORDINATION THROUGH COMMUNICATION

*** H E L P ***

DATE: _____
TO: _____
FROM: _____
RE: Student _____

The above student is having problems in:

☐ Math	☐ English
☐ Social Studies	☐ Science
☐ CVAE _____	☐ Other

Specific Problem:

☐ Excessive Absences	☐ Excessive Tardiness
☐ Classroom Discipline	☐ Turning in Assignments
☐ Class work	☐ Other

How could you assist with this problem?

Please share any information or recommendations on teaching strategies, activities, etc., that you feel would assist this student. Sign, date, and return this form to the originating teacher.

Thank you.

Signature _____ Date _____

EVALUATION OF CVAE STUDENT PROGRESS

No. of Tardies (this 6 weeks): _____

Indifferent

Shop (Circle one): A B C D F

[illegible]

SAMPLE AGENDA

Date:

Time:

Place:

- I. Welcome and remarks by model coordinator
- II. Introduction of participants present
- III. Review the model Coordination Through Communication
- IV. Break
- V. Review students' schedules
- VI. Exchange student information: attendance, grades, behavior, etc.
- VII. Discuss specific students' needs
- VIII. Adjournment

COORDINATION THROUGH COMMUNICATION
INDIVIDUAL COORDINATION RECORD

The following teachers met and discussed strategies which will assist in the coordination of vocational and academic education. Specific agenda items are listed on the attached sheet.

DATE: _____

This form is to be filed with the appropriate administrator.

COORDINATION THROUGH COMMUNICATION

SIGN IN SHEET

DATE: _____

COORDINATOR: _____

TEACHER

TEACHER

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Agenda Attached

STUDENT NAME _____

	SUBJECT	TEACHER
1ST PERIOD	_____	_____
2ND PERIOD	_____	_____
3RD PERIOD	_____	_____
4TH PERIOD	_____	_____
5TH PERIOD	_____	_____
6TH PERIOD	_____	_____
7TH PERIOD	_____	_____

STUDENT NAME _____

	SUBJECT	TEACHER
1ST PERIOD	_____	_____
2ND PERIOD	_____	_____
3RD PERIOD	_____	_____
4TH PERIOD	_____	_____
5TH PERIOD	_____	_____
6TH PERIOD	_____	_____
7TH PERIOD	_____	_____

COORDINATION THROUGH COMMUNICATION

DATE: _____

TO: _____

FROM: _____

RE: Students enrolled in CVAE _____

Enrollment records indicate that the following students are enrolled in your class. Please check your class records and confirm their enrollment and class period.

Student	Period
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Please record this information for your use. Sign, date, and return this form to the originating teacher.

Thank you.

Signature _____ Date _____

APPENDIX D

Materials included in Appendix D have been taken from *Vocational Special Needs Teacher Training Curriculum*, developed by the North Texas State University and Texas A&M University.

BASIC OR GENERALIZABLE MATH SKILLS INSTRUCTION

The following is a list of recommended remedial techniques or strategies which vocational educators and support personnel can utilize in helping students develop basic math skills necessary for gainful employment (King-Fitch, 1985; Otazo-Stern, 1980; Sarkees & Scott, 1985):

1. Determine the student's present level of skill in math by:
 - A. Testing the student with applicable formalized tests (involved support of a math specialist.).
 - B. Devising informal situations to assess a student's ability to perform related math (i.e., individual shop projects.).
 - C. Referring to student records.
 - D. Talking to the student's past teachers and/or other support teachers.
2. Remember the **product** is the most important aspect of your math objectives for students with special needs, not the process.
3. After determining the student's present math skills, build up the student's confidence by giving the learner applicable math problems that you know he or she can handle.
4. Do not waste time teaching math concepts which are not directly related to what the student is being asked to do.
5. Give short timed quizzes (two or three minutes at the beginning of class) in which the student grades his/her work. Give the same quiz for four days in a row or give the same problem and only change the numbers. Grade on the last day.
6. Try to make math enjoyable for the student by relating math concepts to the student's interest, home-life, and career goals.
7. Use visual means (charts, graphs, diagrams, blueprints,) and tactile means (physical objects in which the student can measure or manipulate) when developing problems and concepts. For example:
 - A. Adding coins, nails, or the inch marking on a ruler.
 - B. Subtracting money, pipe lengths.
 - C. Multiplying ingredients, tax, or stock.
 - D. Dividing a board length, a pie, or a template into equal parts.
 - E. Measuring wire, floor space, or paper.
 - F. Folding paper or fabric into equal parts or geometric shapes.

8. Relate mathematical ideas to concepts the student already knows (e.g., comparing 15mm to 16mm film).
9. With regard to homework assignments, if the student is unable to complete the entire assignment, decrease the number of problems the student is expected to complete.
10. Develop worksheets on mathematical shortcuts such as a worksheet depicting number values (e.g., tens, one) and multiplication charts.
11. If remediation efforts fail, bypass specific calculation problem areas by using calculators, tables, pocket charts, etc.
12. Rather than having the student keep track of numbers in their head for several measures, teach him/her to use a calculator.
13. Present your material in a clear, organized, step-by-step way.
14. If students reverse numbers or mislay them during operations, have them use graph paper or work the operation in a tic-tac-toe configuration.
15. Put mathematical formulas into understandable common terms.
16. Put fractions into decimals when necessary.
17. Have the student say the problem out loud and verbally indicate the steps.

Important Note:

It is incumbent upon the vocational and mathematics educators to prepare students with basic math skills needed for gainful employment. In order to accomplish this goal, the vocational and mathematics educator must work cooperatively in identifying basic mathematics skills used in the various vocations and then adjust their curricula and instruction to meet the student's individual needs and goals.

STRATEGIES FOR TEACHING BASIC MATH SKILLS TO DISADVANTAGED STUDENTS

Some basic math concepts that provide a framework for more complex work include addition, subtraction, multiplication, division facts, and measuring.

Basic Addition, Subtraction, Multiplication, and Division Facts

Learning facts. Given a set of flashcards, the student will be able to give answers to basic facts. A time limit should be imposed. Students should keep track of their progress on a chart and be given verbal rewards for each small success.

Story problems. Create simple story problems to emphasize the basic facts and provide practice. For example, "If I need 16 board feet for project A and 12 board feet for project B, how much should I buy?" Use numbers that are essential to the subject matter in many forms, both verbal and written, in discussion, charts, signs, etc.

Measuring

Linear. Give students experience in measuring with rulers (standard and metric). They can measure desks, chairs, pictures, books, walls, hallways, or school grounds. Giving them a fill-in-the-blank worksheet provide structure and consistency to record-keeping. This is also an opportunity for students to work in pairs or small groups to help each other.

Volume. Practice with measuring wet and dry ingredients gives visual reinforcement of the size of one cup, one gallon, or one liter whether making a cake or concrete.

Temperature. Keeping track of daily indoor temperature, body temperature, and oven temperature gives students a firm perspective on "hot" or "cold." This is also a perfect opportunity for graphs and tables as a way of recording information.

Money. Problem-solving could involve the value of items in your particular subject area, such as materials for welding, sewing, or masonry. The opportunity to handle real money (nickels, dimes, quarters) helps students conceptualize the value of written numbers. This could also include the potential earning power of a skill. For example, "If I make \$5 per hour, how much can I make if the job takes four hours?"

From: Kisner, M. (1985). Curriculum information network/disadvantaged. University Park, PA: The Pennsylvania State University.

REMEDIAL READING TECHNIQUES

The following is a list of remedial techniques vocational educators and support personnel can utilize in an effort to assist learners who have poor reading skills.

Determine the readability level of material used in your class and reading level of your student/s (readability level of material can be determined by using the FOG Reading Index or Flesch Readability Formula; the student's reading level can be determined by using the Cloze Procedure).

Note: See the following handouts for these formulas:

M-8: H04: Fog Reading Index

M-8: H05: Fry Readability Formula

M-8: H06: Flesch Readability Formula

M-8: H07: Close Procedure for Reading Comprehension

Ensure that the reading material used in your classroom is compatible with the student's interest and ability level.

Use several books or materials at various levels of reading difficulty that cover the same content.

Rewrite important passages or selections to lower reading levels by simplifying vocabulary and shortening sentences (do not delete necessary technical terms).

Tape important information from text on cassettes.

Introduce and reinforce background concepts needed to understand the material in the reading.

Cover all unfamiliar technical terms and words that may present difficulty in the reading material.

Review previously introduced terminology frequently used in the vocational program and assist learners in analyzing the meaning.

Develop questions for learners before a silent or oral reading assignment and follow up the activity by discussing the questions.

Make certain that printed pages have enough blank space so the learner will not be confused when reading, especially when there are pictures or diagrams involved.

Vocabulary words should be in **BOLD PRINT** and defined on the same page they are used or at the end of the chapter.

A glossary should provide a guide to pronunciation of terms in reading materials.

Important subject headings should be presented in **BOLD PRINT**.

Double-column pages provide for easier eye movement when reading content.

Underline pertinent information and specific directions.

Use a highlighting pen to identify main ideas, important lists, technical terms, and important facts.

Provide extra help for students with reading problems.

Once students read and comprehend content, utilize activities and hands-on experiences to help complete the learning process.

Modify test questions to make them easier to comprehend.

From: Sarkees, M. D. & Scott, J. L. (1985). Vocational special needs (2nd ed.). Alsip, Illinois: American Technical Publisher, Inc.

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READABILITY FORMULAS

A readability formula is used to help determine the reading level of instructional material. There are several formulas which can be used for this purpose: (a) the Fog Reading Index; (b) the Fry Readability Formula; and (c) the Flesch Readability Formula. The following is a presentation of how each formula is used:

FOG READING INDEX

Several steps are required when using the FOG Index to determine the reading difficulty of instructional materials. The results of these steps will be a reading level comparable to a grade level. Calculations for each of these steps may be recorded in the spaces at the right.

1. Choose three samples, 100 words each, from various sections of the material.
2. Count the number of sentences in each sample, stopping the count with the sentence ending nearest the 100-word limit.
 - A. Number of sentences.
3. Divide the number of words in the sample by the number of sentences. This will provide the average sentence length.
 - B. Number of words in the sample divided by number of sentences.
4. Count the number of words in the samples that have three or more syllables.
 - C. Total number of words with three or more syllables.
 - D. Number of words with three or more syllables that should not be counted. These are:
 - (a) Proper names;
 - (b) Combinations of short, easy words (e.g., bookkeeper);
 - (c) Verb forms made into three syllables by adding -ed, -es, (e.g., created, opposes);
 - (d) Technical in nature (if you intend to teach as vocabulary).
 - E. Corrected number of words with three or more syllables (C minus D).
5. Add the total average sentence length and the corrected number of three-syllable words.
 - F. Average sentence length (B) plus corrected number of three syllable words (E).
6. Compute reading level for the sample.
 - G. Multiply previous level (F) by 0.4.
7. Compute the average reading levels of the three samples.
 - H. Total of the three readings divided by three.

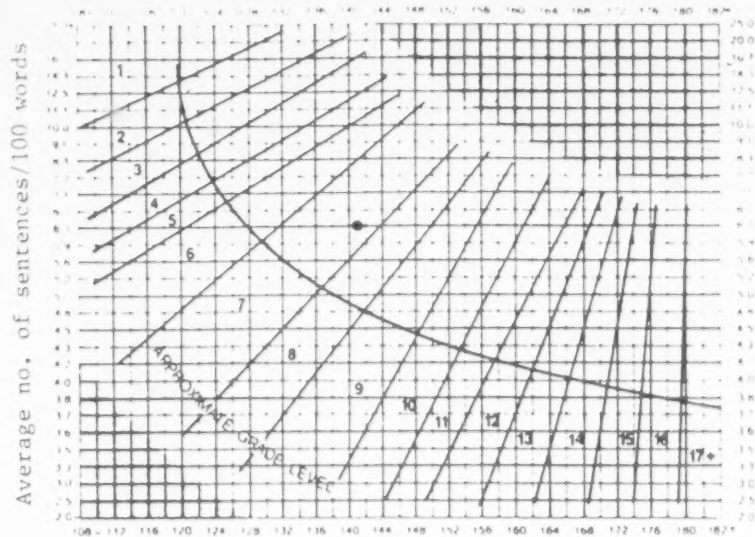
$$\frac{G1 + G2 + G3}{3} = \text{FOG Index (Reading Difficulty Level)}$$

Modified from Phelps, L. A. and Lutz, R. (1977). *Career exploration and preparation for special needs learners*. Boston: Allyn and Bacon.

	Sample 1	Sample 2	Sample 3
page _____	page _____	page _____	
A. _____	_____	_____	
B. _____	_____	_____	
C. _____	_____	_____	
D. _____	_____	_____	
E. _____	_____	_____	
F. _____	_____	_____	
G. _____	_____	_____	
H. _____	_____	_____	

FRY READABILITY FORMULA

Average number of syllables per 100 words



Expanded Directions for Working Readability Graph

1. Randomly select three (3) sample passages and count out exactly 100 words each, beginning with the beginning of a sentence. Do count proper nouns, initializations, and numerals.
2. Count the number of sentences in the hundred words, estimating length of the fraction of the last sentence to the nearest one-tenth.
3. Count the total number of syllables in the 100-word passage. If you don't have a hand counter available, an easy way is to simply put a mark above every syllable over one in each word, then when you get to the end of the passage, count the number of marks and add 100. Small calculators can also be used as counters by pushing numeral 1, then push the + sign for each word or syllable when counting.
4. Enter graph with *average* sentence length and *average* number of syllables; plot dot where the two lines intersect. Area where dot is plotted will give you the approximate grade level.
5. If a great deal of variability is found in syllable count or sentence count, putting more samples into the average is desirable.
6. A word is defined as a group of symbols with a space on either side; thus, Joe, IRA, 1945, and & are each one word.
7. A syllable is defined as a phonetic syllable. Generally, there are as many syllables as vowel sounds. For example, *stopped* is one syllable and *wanted* is two syllables. When counting syllables for numerals and initializations, count one syllable for each symbol. For example, 1945 is four syllables, IRA is three syllables, and & is one syllable.

Note: This "extended graph" does not outmode or render the earlier (1968) version inoperative or inaccurate; it is an extension. (REPRODUCTION PERMITTED—NO COPYRIGHT)

FLESCH READABILITY FORMULA

A. Selection of Samples

1. Take enough written samples from the text to make a fair test. To make your samples random, go by a strictly numerical scheme (e.g., selecting random page numbers from a given book) rather than picking "good" or "typical" samples.
2. Each sample should start at the beginning of a paragraph. Example: In a 152-page book, take the first paragraphs on each of pages 7, 25, 78, 122. Page numbers are chosen "blind" without looking at these pages.

B. Counting the Number of Words

1. Start counting the words. Stop when you reach 100. You need 100 words for each sample.
2. Count contractions and hyphenated words as one word.
3. Count numbers and letters as words, if separated by spaces. Example: "1948" and "C.O.D." would each count as one word.

C. Counting the Number of Sentences

1. Count complete sentences or complete units of thought. Some sentences are marked off by colons or semicolons.
2. Don't break up sentences joined by conjunctions such as "and" or "but."

D. Figuring Average Sentence Length

1. When using several samples, figure the average sentence length for all the samples combined.
2. Total the number of words in all of the samples (4 samples would have 400 words) and divide by the number of sentences in all of the samples.

E. Counting the One-Syllable Words

1. Count all the one-syllable words in all of the 100-word samples and divide the total number of one-syllable words by the number of samples.

F. Figuring the Reading Ease Score

1. Apply the average sentence length in words and the average number of one-syllable words per sample to the Flesch Reading Ease Index Table to arrive at the reading ease index number and then use the Flesch Conversion Table to compute the estimated reading grade.

FLESCH READING EASE INDEX TABLE

Average Words Per Sentence	Number of One-Syllable Words per Hundred Words																											
	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34	32	30
9	94	90	87	84	81	78	74	72	68	65	61	58	56	52	49	45	42	40	36	33	29	27	23					
10	93	89	86	83	80	77	73	71	67	64	60	57	55	51	48	44	41	39	35	32	28	26	22					
11	92	88	85	82	79	76	72	70	66	63	59	56	54	50	47	43	40	38	34	31	27	25	21					
12	91	87	84	81	78	75	71	69	65	62	58	55	53	49	46	42	39	37	33	30	26	24	20					
13	90	86	83	80	77	74	70	68	64	61	57	54	52	48	45	41	38	35	32	29	25	23	19					
14	89	85	82	79	76	72	69	67	63	60	56	53	50	47	44	40	37	34	31	28	24	22	18					
15	88	84	81	78	75	71	68	66	62	59	55	52	49	46	43	39	36	33	30	27	23	21	17					
16	87	83	80	77	74	70	67	65	61	58	54	51	48	45	42	38	35	32	29	26	22	20	16					
17	86	82	79	76	73	69	66	64	60	57	53	50	47	44	41	37	34	31	28	25	21	19	15					
18	85	81	78	75	72	68	65	63	59	56	52	49	46	43	40	36	33	30	27	24	20	18	14					
19	83	80	77	74	71	67	64	61	58	55	51	48	45	42	39	35	32	29	26	23	19	17	13					
20	82	79	76	73	70	66	63	60	57	54	50	47	44	41	38	34	31	28	25	22	18	16	12					
21	81	78	75	72	69	65	62	59	56	53	49	46	43	40	37	33	30	27	24	21	17	15	11					
22	80	77	74	71	68	64	61	58	55	52	48	45	42	39	36	32	29	26	23	20	16	14	10					
23	79	76	73	70	67	63	60	57	54	51	47	44	41	38	35	31	28	25	22	19	15	13	9					
24	78	75	72	69	66	62	59	56	53	50	46	43	40	37	34	30	27	24	21	18	14	12	8					
25	77	74	71	68	65	61	58	55	52	49	45	42	39	36	33	29	26	23	20	17	13	11	7					
26	76	73	70	67	64	60	57	54	51	48	44	41	38	35	32	28	25	22	19	16	12	10	6					
27	75	72	69	66	63	59	56	53	50	47	43	40	37	34	31	27	24	21	18	15	11	9	5					
28	74	71	68	65	62	58	55	52	49	46	42	39	36	33	30	26	23	20	17	13	10	8	4					
29	73	70	67	64	61	57	54	51	48	45	41	38	35	32	29	25	22	19	16	12	9	7	3					
30	72	69	66	63	60	56	53	50	47	44	40	37	34	31	27	24	21	18	15	11	8	6	2					
31	71	68	65	62	59	55	52	49	46	43	39	36	33	30	26	23	20	17	14	10	7	5	1					
32	70	67	64	61	58	54	51	48	45	42	38	35	32	29	25	22	19	16	13	9	6	4						
33	69	66	63	60	57	53	50	47	44	41	37	34	31	28	24	21	18	15	12	8	5	2						
34	68	65	61	59	56	52	49	46	43	40	36	33	30	27	23	20	17	14	11	7	4	1						
35	67	64	60	58	55	51	48	45	42	38	35	32	29	26	22	19	16	13	10	6	3							
36	66	63	59	57	54	50	47	44	41	37	34	31	28	25	21	18	15	12	9	5	2							
37	65	62	58	56	53	49	46	43	40	36	33	30	27	24	20	17	14	11	8	4	1							
38	64	61	57	55	52	48	45	42	39	35	32	29	26	23	19	16	13	10	7	3								

FLESCH CONVERSION TABLE

Reading Ease Score	Estimated Reading Grade
90 to 100	5th Grade
80 to 90	6th Grade
70 to 80	7th Grade
60 to 70	8th to 9th Grade
50 to 60	10th to 12th Grade
30 to 50	13th to 16th Grade (College)
0 to 30	College Graduate

CLOZE PROCEDURE FOR READING COMPREHENSION

The Cloze Procedure can be used to test for a learner's ability to comprehend what has been read. This technique is well suited to vocational instructional materials because of the technical terms.

Construction

1. Select a representative passage from your class text of approximately 520 words. The passage should *not* have been previously read by the students. Include only the main body of the material (no captions, heading, etc.).
2. Type the entire first sentence as it is in the text.
3. Beginning with the second sentence, delete every *tenth* word. Use a fifteen space line in place of the deleted word. Number each deletion in the center of the fifteen space line.
4. Make 50 deletions.
5. Leave the last sentence exactly as it is in the text.

Administration

1. Prior to giving the test, demonstrate to students how to take the test. Make the following remarks (or paraphrase):

On the next page is a sample of a new kind of test. Each of these tests is made by copying a few paragraphs from a book. Every fifth word was left out of the paragraphs, and blank spaces were put where the words were taken out.

Your job will be to guess what word was left out of each space and to write that word in that space.

It will help you in taking the test if you remember these things.

1. Write only one word in each blank.
2. Try to fill every blank. Don't be afraid to guess.
3. You may skip hard blanks and come back to them when you have finished.
4. Wrong spelling will not count against you if we can tell what word you meant.
5. Most of the blanks can be answered with ordinary words but a few will be
 - numbers like 3,427 or \$12 or 1954
 - contractions like can't or weren't
 - abbreviations like Mrs. U.S.A.
 - parts of hyphenated words like self- in the word self-made
2. Using an over head projector or the chalkboard, present a short passage of three or four sentences with every tenth word deleted as an example of the activity.
3. Have the class fill in the deletions orally. Explain that while more than one word could be used, only the exact replacements will be accepted on this test.
4. Hand out the sheet to the class.
5. Answer any questions.

Although there is no time limit, students will usually complete the test in 50 minutes.

Scoring the Test

A student's responses are scored correct only when they exactly match the words deleted. Minor spelling errors are scored correct so long as the response is otherwise correct. However, omission of plural or tense endings is scored incorrect as in "table" for tables or "work" for worked. Convert raw scores to percentage scores by multiplying the number correct by two, when a 50-item test is used. To save time, use a window key with holes cut in a sheet of paper so that everything but the responses is masked when the sheet is placed over the test. Write the correct response beside each window.

_____ Raw Score $\times 2 =$ _____ %

58% and higher - Independent level
 44% to 58% - Instructional level
 below 44% - Frustrational level

Taken from: Sarkees, M.D. & Scott, J.L. (1985). Vocational special needs (2nd ed.). Alsip, Illinois: American Technical Publishers, Inc.

APPENDIX E

**COORDINATION THROUGH COMMUNICATION
WORKSHOP EVALUATION**

SITE: _____ **DATE:** _____

DIRECTIONS: Please circle the appropriate response:

- | Yes | 1 | 2 | 3 | 4 | 5 | No | |
|-----|---|---|---|---|---|----|---|
| | 1 | 2 | 3 | 4 | 5 | | 1. The workshop was very helpful. |
| | 1 | 2 | 3 | 4 | 5 | | 2. Information covering the purpose of the model was explained clearly. |
| | 1 | 2 | 3 | 4 | 5 | | 3. The objectives of the model were clearly stated. |
| | 1 | 2 | 3 | 4 | 5 | | 4. The objectives stated for the model were met completely. |
| | 1 | 2 | 3 | 4 | 5 | | 5. The general atmosphere of the workshop was such that I felt free and open. |
| | 1 | 2 | 3 | 4 | 5 | | 6. The workshop facilitator was great. |
| | 1 | 2 | 3 | 4 | 5 | | 7. The format of the workshop was super. |
| | 1 | 2 | 3 | 4 | 5 | | 8. The workshop materials were terrific. |
| | 1 | 2 | 3 | 4 | 5 | | 9. I feel that as a result of this workshop, I gained useful ideas. |

10. Other comments:

**COORDINATION THROUGH COMMUNICATION
WORKSHOP EVALUATION**

SITE: _____ **DATE:** _____

DIRECTIONS: Please circle the appropriate response:

1. The workshop was:

A. Very helpful	C. Not very helpful
B. Somewhat helpful	D. Completely useless

2. Information covering the purpose of the model was:

A. Explained clearly	C. Unclear
B. Explained	D. Not provided

3. The objectives of the model were:

A. Clearly stated	C. Poorly stated
B. Stated	D. Not stated

4. The objectives stated for the model were:

A. Met completely	C. Touched on
B. Met to some extent	D. Not met

5. The general atmosphere of the workshop was such that I felt:

A. Free and open	C. So-so
B. Comfortable	D. Uptight

6. The workshop facilitator was:

A. Great	C. OK
B. Good	D. Boredom prevailed

7. The format of the workshop was:

- A. Super
- B. Good

- C. Satisfactory
- D. Too much

8. The workshop materials were:

- A. Terrific
- B. OK

- C. Not so hot
- D. Crummy

9. I feel that as a result of this workshop:

- A. I gained useful ideas
- B. I might use some of the information
- C. I will not change what I have been doing

10. Other comments:

**COORDINATION THROUGH COMMUNICATION
WORKSHOP EVALUATION**

SITE: _____ **DATE:** _____

DIRECTIONS: Please circle the appropriate response:

1. The workshop was:
 - A. Very helpful
 - B. Somewhat helpful
 - C. Not very helpful
 - D. Completely useless

2. Information covering the purpose of the model was:
 - A. Explained clearly
 - B. Explained
 - C. Unclear

3. The objectives of the model were:
 - A. Clearly stated
 - B. Stated
 - C. Not stated

4. The objectives stated for the model were:
 - A. Met completely
 - B. Met to some extent
 - C. Touched on
 - D. Not met

5. The general atmosphere of the workshop was such that I felt:

- A. Free and open
- B. So-so
- C. Uptight

6. The workshop facilitator was:

- A. Great
- B. OK
- C. Boredom prevailed

7. The format of the workshop was:

- A. Super
- B. Satisfactory
- C. Too much

8. The workshop materials were:

- A. Terrific
- B. OK
- C. Not so hot
- D. Crummy

9. I feel that as a result of this workshop:

- A. I gained useful ideas
- B. I might use some information
- C. I will not change what I have been doing

10. Other comments:

COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

- (1) acceptance policies on student transfers from other school districts;
- (2) operation of school bus routes or runs on a non-segregated basis;
- (3) nondiscrimination in extracurricular activities and the use of school facilities;
- (4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;
- (5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;
- (6) nondiscriminatory practices relating to the use of a student's first language; and
- (7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, Department of Health, Education and Welfare.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.